

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-327 DATE: _____
 CUSTOMER: JAL MCL 15,037 DTD _____
 CHANGE NO: 93 MODEL: 22-3 (22M)

TITLE: Specification Administrative Change (Revision to Portable Oxygen Bottle Part Number - Group C Airplanes)

ORIGIN: Convair initiated

REASON FOR CHANGE: Specification correction

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *
None

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:</p>	<p><i>A.C. Truex</i></p> <p>ENGINEERING APPROVAL</p>
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LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
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SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE: RECURRING: _____ NON-RECURRING: _____ TOTAL: _____
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ACCEPTED: _____ CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Specification Administrative Change (Revision to Portable
Oxygen Bottle Part Number - Group C Airplanes)

Origin: Convair initiated

Reason for Change: Specification correct

Description of Change:

Page A-17, APPENDIX I-C, OXYGEN EQUIPMENT

Change the following item in the equipment list:

From: "1 *Bottle, Portable
Oxygen and Smoke
Mask (310-liter) Scott 5600-2C1A-E20B 10.0"

To: "1 *Bottle, Portable
Oxygen and Smoke
Mask (310-liter) Scott 6080-3 10.0"

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

The following shall not appear in Specification language:

- a. Machmeter Indicators and Airspeed Indicators were changed to comply with the requirements of Special Civil Air Regulation SR-450A. (Refer to Service Bulletin No. 34-12A, dated 7 December 1962.)
- b. The Engine Oil Pressure Indicator for all airplanes has been changed to SR-04A. The updating of these indicators to SR-04B is covered in Service Bulletin No. 31-1A, dated 25 May 1962.
- c. A 3924-1AG-B1-1 Turn and Bank Indicator is installed for the copilot and a 3924-1AG-C1-1 indicator installed for the pilot. These indicators are completely interchangeable and contain only minor internal differences.

Effect on Weight Empty:	None
Effect on Balance:	None
Effect on Performance:	None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-327

DATE: _____

CUSTOMER: JAL

MCL 15,036 DTD _____

CHANGE NO.: 92

MODEL: 22-3 (22M)

TITLE: Specification Administrative Change (Revision to Pitot Static System - Group C Airplanes)

ORIGIN: Convair initiated

REASON FOR CHANGE: To up-date pitot-static system to show separation of static sources for cabin outflow valves and cabin controller.

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

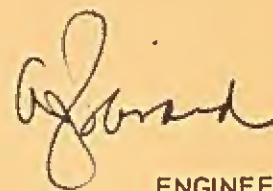
0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:



ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Specification Administrative Change (Revision to Pitot Static System - Group C Airplanes)

Origin: Convair initiated

Reason for Change: To up-date pitot static system to show separation of static sources for cabin outflow valves and cabin controller.

Description of Change:

Page 50, Para. 3.14.3.2.1 STATIC SOURCES:

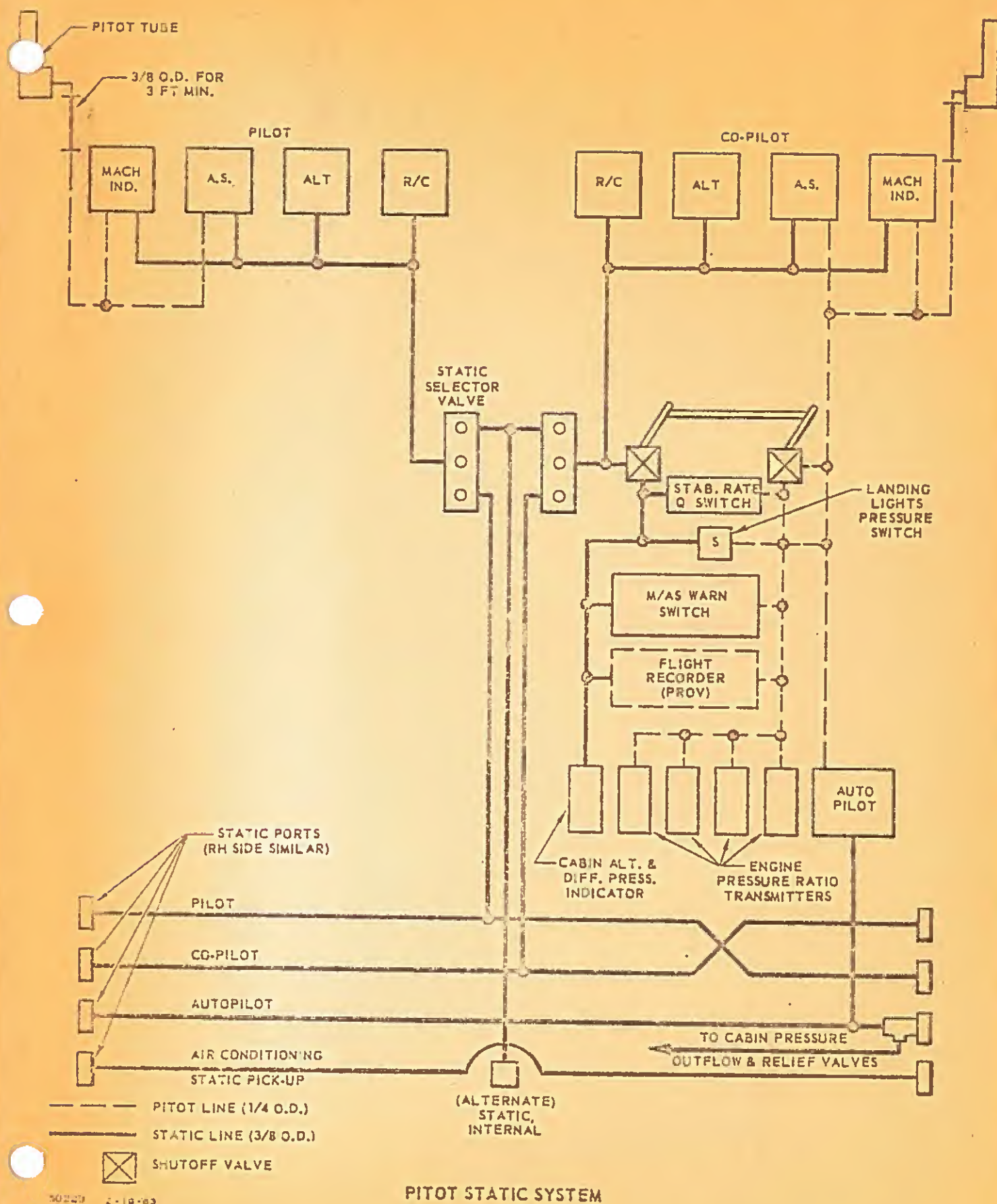
Change the last sentence to read as follows:

"A separate static source shall be provided for the autopilot system and the cabin pressure outflow valve."

Page 50a - PITOT STATIC SYSTEM - ILLUSTRATION:

Replace above illustration in the specification with attached revised illustration to show current changes.

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None



PITOT STATIC SYSTEM

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: JAL

MCL 15,035 DTD _____

CHANGE NO: 91

MODEL: 22-22 (22M)

TITLE: Specification Administrative Change (Revision to Pitot Static System - Groups A and B Airplanes)

ORIGIN: Convair initiated

REASON FOR CHANGE: To up-date pitot-static system to show separation of static sources for cabin outflow valves and cabin controller.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:



ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____
NON-RECURRING: _____
TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Specification Administrative Change (Revision to Pitot Static System - Groups A and B Airplanes)

Origin: Convair initiated

Reason for Change: To up-date pitot static system to show separation of static sources for cabin outflow valves and cabin controller.

Description of Change:

Page 46 Cont. 2, Para. 3.14.3.2.1 STATIC SOURCES:

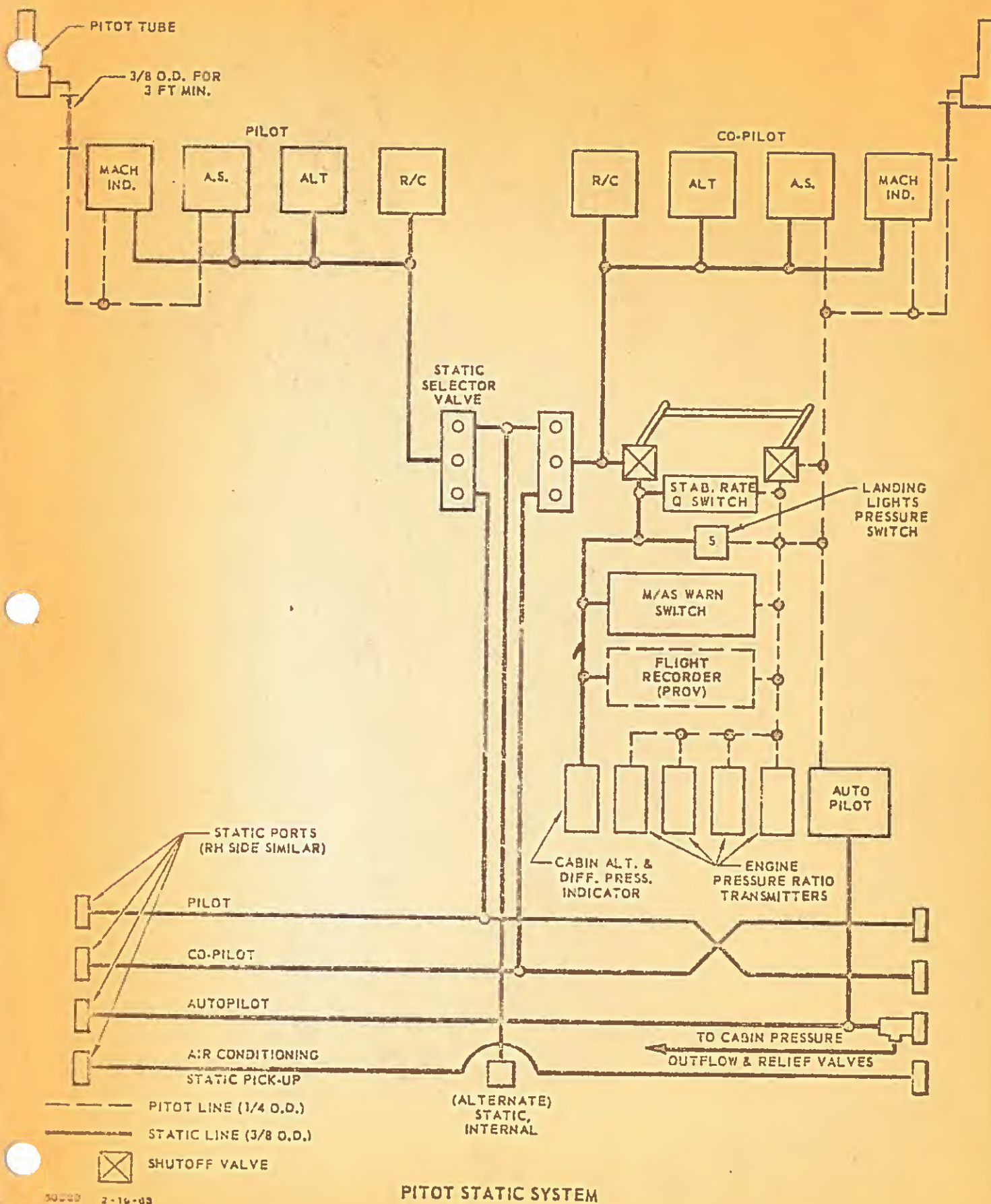
Change the last sentence to read as follows:

"A separate static source shall be provided for the autopilot system and the cabin pressure outflow valve."

Page 46a - PITOT STATIC SYSTEM - ILLUSTRATION:

Replace above illustration in the specification with attached revised illustration to show current changes.

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None



PITOT STATIC SYSTEM

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,125 DTD _____

CHANGE NO. 90

MODEL: 22-22 Ships No. 4 and No. 5 (Convair "880")

TITLE: Relocation of Doppler R/T Unit

ORIGIN: Customer request

REASON FOR CHANGE: As above

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY Prop. "A" +2.0 lb Prop. "B" 0	OPER. WT. EMPTY Prop. "A" +2.0 lb Prop. "B" 0	Prop. "A" +1,840 In-Lb Prop. "B" 0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: None

<p>NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES Change Order No. 7.</p>	<p><u>m. L.C. 4/5/62</u></p> <p><i>J. H. Sharp</i> ENGINEERING APPROVAL</p>
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LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: _____ CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Relocation of Doppler R/T Unit
Origin: Customer request
Reason for Change: As above
Description of Change:

PROPOSAL "A"

Page 81, Paragraph 3.17.4.3 DOPPLER NAVIGATION SYSTEM (Effective Ships 4 and 5):

Change the last sentence in the paragraph as follows:

"Installation of one receiver-transmitter (3/8 ATR Short) in accordance with ARINC Characteristic No. 540 shall be made in the hydraulic compartment."

The following shall not appear in the Specification language:

In accordance with the relocation of the Doppler R/T unit the following changes shall be accomplished:

- a. Provide mounting brackets for R/T unit on forward face of bulkhead station 1002 in the hydraulic compartment approximately in area of centerline of airplane.
- b. Provide a removable fibre glass cover to protect R/T unit from skydrol contamination.
- c. Revise hydraulic compartment shrouding to accommodate installation of R/T unit and waveguid. In addition revise waveguide installation to accommodate new unit location.
- d. Revise necessary wire harnesses and coaxial cables.
- e. Revise wiring diagram, manuals and handbooks as required.

Effect on Weight Empty: +2.0 pounds
Effect on Balance: +1,840 inch-pounds
Effect on Performance: None

PROPOSAL "B"

The following does not affect the specification language but proposes to provide complete engineering drawings only, covering the changes described in Proposal "A". No factory work, handbooks or manual changes shall be included in this proposal.

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,128 DTD _____

CHANGE NO: 89

MODEL: 22-22 Ships No. 4 and No. 5 (Convair "880")

TITLE: Access Door at Base of Vertical Stabilizer, Addition of

ORIGIN: Customer request

REASON FOR CHANGE: As above

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

+3.0 lb

+3.0 lb

+4,410

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

m. l. c. 4/4

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

J. H. Shop

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY _____

DATE: _____

Title: Access Door at Base of Vertical Stabilizer, Addition of

Origin: Customer requested

Reason for Change: As above

Description of Change:

The following does not affect the specification language but proposes to accomplish the following on JAL Ships No. 4 and No. 5:

- a. Install one 14" x 18" (approximately) access door on R/H side of vertical stabilizer. Door will be located in area between Spars No. 2 and No. 3 and will be just above base of the vertical stabilizer.
- b. Door will have integral stiffeners and will be held in place with screws and nutplates.

Effect on Weight Empty: +3.0 pounds
Effect on Balance: +4,410 inch-pounds
Effect on Performance: None

C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,127 DTD 23 March 1962

CHANGE NO: 88

MODEL: 22-22 (Convair "880")

TITLE Oxygen Cylinder Assemblies, Substitution of

ORIGIN: Japan Air Lines requested

REASON FOR CHANGE: As above

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

None

-1.0 lb

-280

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND
TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

m. L. C. 4/3

J. H. Sharp

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Oxygen Cylinder Assemblies, Substitution of

Origin: Japan Air Lines requested

Reason for Change: As above

Description of Change:

Page A-16, APPENDIX I-C, OXYGEN EQUIPMENT:

Revise the below item under "Description" as follows:

<u>From:</u>	"3 *Cylinder, High Pressure Oxygen (107 cu ft) (with gages)	Zep Aero	ZC268-111	126.0"
<u>To:</u>	"3 ø *Cylinder, High Pressure Oxygen (107 cu ft) (with gages)	Zep Aero	ZC268-111-10	126
	3 øø *Cylinder, High Pressure Oxygen (107 cu ft) (with gages)	Zep Aero	(P/N to be supplied)	"

Add the following to the bottom of Page A-16:

" ~~ø~~Applies to Ships 1 through 3.
~~øø~~Applies to Ships 4 and 5."

Effect on Operating Weight Empty:	-1.0 pound
Effect on Balance:	-280 inch-pounds
Effect on Performance:	None

The following shall not appear in specification language:

This change consists of replacing the Zep Aero oxygen cylinder assemblies incorporating Robbins ROV 600 regulating valves, with Zep Aero cylinder assemblies incorporating Scott 10850-27 regulating valves on Airplanes 4 and 5.

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,124 DTD 15 March 1962

CHANGE NO.: 87

MODEL: 22-22 (Convair "880")

TITLE: Doppler Antenna Access Panel Fasteners, Replacement of

ORIGIN: Japan Air Lines requested

REASON FOR CHANGE: As above

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
Proposal "A" - Neg.	Proposal "A" - Neg.	Proposal "A" - Neg. In-Lb
Proposal "B" - Neg.	Proposal "B" - Neg.	Proposal "B" - Neg. INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

M. L. C 4/4

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES

J. H. Sharp

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Doppler Antenna Access Panel Fasteners, Replacement of

Origin: Japan Air Lines requested

Reason for Change: As above

Description of Change:

PROPOSAL "A"

The specification language is not affected by this change which proposes to replace the present doppler antenna access door fasteners on Airplanes 4 and 5 with Camloc stressed panel fasteners No. 4R41 and No. 4S14. This will be a complete production installation and shall not include the first three JAL airplanes already delivered.

Effect on Weight Empty:	Negligible
Effect on Balance:	Negligible
Effect on Performance:	None

PROPOSAL "B"

The specification language is not affected by this change which proposes that complete engineering only be supplied to JAL; with no installation, manual changes, parts or service bulletins provided for.

Effect on Weight Empty:	Negligible
Effect on Balance:	Negligible
Effect on Performance:	None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,123 DTD _____

CHANGE NO: 86

MODEL: 22-22 Ships #4 & #5 (Conva: "88)

TITLE: Inspection Plates, Installation of

ORIGIN: Customer request

REASON FOR CHANGE: To provide inspection holes in lower surface of wing center section tie box.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
Negligible	Negligible	Negligible INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

M. L. C.
2/15/62

J. H. [Signature]

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE: _____ AIRPLANES AFFECTED: _____

SPECIAL PROVISIONS: _____ EFFECT ON PRICE PER AIRPLANE:
RECURRING: _____
NON-RECURRING: _____
TOTAL: _____

ACCEPTED: _____ CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Inspection Plates, Installation of

Origin: Customer request

Reason for Change: To provide inspection holes in lower surface of
wing center section tie box.

Description of Change:

This change does not affect the specification language but proposes to accomplish the following on JAL Ships No. 4 and No. 5:

- a. Install two (2) six-inch diameter inspection holes in lower surface of wing center section tie box between auxiliary spars No. 1 and No. 2, and B.L 0 and 20.75.
- b. Install metal cover plates and gaskets.

Effect on Weight Empty: Negligible
Effect on Balance: Negligible
Effect on Performance: Negligible

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,122 DTD _____

CHANGE NO: 85

MODEL: 22-24 Ships #4 & #5 (Conva "880)

TITLE: G. E. Service Bulletins on JAL Engines, Incorporation of

ORIGIN: Customer request

REASON FOR CHANGE: As above

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

+17.0 lb

+17.0 lb

+13,175 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

M. L. C.
2/15/62

J. H. Sharp

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: G.E. Service Bulletins on JAL Engines, Incorporation of

Origin: Customer request

Reason for Change: As above

Description of Change:

The specification language is not affected by this change which proposes to accomplish the following:

*Incorporation of the following G.E. service bulletins on JAL engines for Ships No. 4 and No. 5, during the manufacturing cycle of the airplanes:

72-39 Welding of Oil Tank CSD Bulkhead
72-41 Addition of Stiffeners and Bearing Plate to
Oil Tanks
73-5 Modification of CIT Sensor
75-2 CDT Controlled Anti-Icing System
75-3 Clamping of Anti-Icing Signal Line
78-6 Retrofit of Oil Filter Body, Cap and
Chip Detector

*Effective Ships 4 and 5.

Effect on Weight Empty: +17.0 pounds
Effect on Balance: +13,175 inch-pounds
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,115 DTD _____

CHANGE NO: 83

MODEL: 22-22 (Convair "880")

TITLE: Change Crew Oxygen Masks from Convair Furnished to Customer
Furnished (Ships 4 and on)

ORIGIN: JAL Letter, SANQA-X-285, dated 29 May 1961

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

Negligible

Negligible

Negligible INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND
TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Ready 10/25/61

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Change Crew Oxygen Masks From Convair Furnished to Customer
Furnished (Ships 4 and on)

Origin: JAL Letter, SANQA-X-285, dated 29 May 1961

Reason for Change: Customer request

Description of Change:

Page A-1, APPENDIX I-A, CUSTOMER FURNISHED - CONVAIR INSTALLED

Add the following to the equipment list:

"**5 Mask, Supplemental Oxygen (with Carbon Mike RS-84)	ARO	23808-100A-M
**5 Hoses, Oxygen	ARO	23808-120K"

Add the following to bottom of page:

"**Effective Ships 4 and on."

Page A-16, APPENDIX I-C, CONVAIR FURNISHED - CONVAIR INSTALLED

OXYGEN EQUIPMENT

Change the following items in the equipment list:

From: "5 Mask, Supplemental Oxygen Sierra 358-158"

To: "**5 Mask, Supplemental Oxygen Sierra 358-158"

Add the following to bottom of page:

"**Effective Ships 1 through 3."

Effect on Weight Empty:	Negligible
Effect on Balance:	Negligible
Effect on Performance:	None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322 DATE _____

CUSTOMER: Japan Air Lines MCL 15,034 DTD _____

CHANGE NO.: 82A MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Revision to Weather Radar Indicator Part Number)

ORIGIN: Convair initiated

REASON FOR CHANGE: Specification correction, to specify a later improved weather radar indicator including an erase feature, and revision to CCP No. 82.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: * None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

M.L.C. 1-16-62

J.H. Sharp

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____
NON-RECURRING: _____
TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Specification Administrative Change (Revision to Weather Radar Indicator Part Number)

Origin: Convair initiated

Reason for Change: Specification correction, to specify a later improved weather radar indicator including an erase feature, and revision to CCP No. 82.

Description of Change:

Page 80, Paragraph 3.17.4.1 WEATHER PENETRATION AIRBORNE RADAR:

Add the following to end of paragraph:

"The indicator shall be equipped with a bright cathode ray tube."

Page A-10, APPENDIX I-C, ELECTRONIC EQUIPMENT

Change the following item under "Weather Radar":

From: "1 Indicator RCA M1-23613-3

To: "1 Indicator RCA M1-23613-5"

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,118 DTD _____

CHANGE NO.: 81

MODEL: 22-22 (Convair "880")

TITLE: EPR Indicator, Revision to

ORIGIN: Customer verbal request

REASON FOR CHANGE: As above

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

+4.0 lb

+4.0 lb

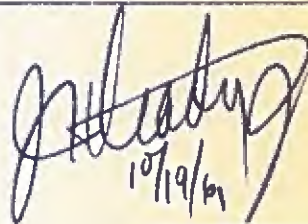
+816 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:


10/19/61

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: EPR Indicator, Revision to

Origin: Customer verbal request.

Reason for Change: As above

Description of Change:

Page A-5, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Change the below equipment under "Engine Instruments - General"
as follows:

<u>From:</u>	"4 Indicator Pressure Ratio	Kollsman	A31537-10-001"
<u>To:</u>	" *4 Indicator Pressure Ratio	Kollsman	A31537-10-001
	**4 Indicator Pressure Ratio	Kollsman	C29187-10-004"

Add the following to bottom of page:

" *Effective Ships 1, 2 and 3.

**Effective Ships 4 and on."

Effect on Weight Empty:	+4.0 pounds
Effect on Balance:	+816 inch-pounds
Effect on Performance:	None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,110 DTD _____

CHANGE NO. 80

MODEL 22-22 (Convair "880")

TITLE: CFE Single Doppler, Installation of

ORIGIN: JAL, TWX TYOQA/CPG/130800, dated 13 April 1961

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+101.0 lb	+101.0 lb	+66,293 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Signature] 8/24/61

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE: _____

AIRPLANES AFFECTED: _____

SPECIAL PROVISIONS

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED. _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: CFE Single Doppler, Installation of

Origin: JAL TWX TYOQA/CPG/130800, dated 13 April 1961

Reason for Change: Customer request

Description of Change:

Page 44a, PILOT'S AND COPILOT'S INSTRUMENT PANELS - ILLUSTRATION

Revise above illustration to show ship effectivity 1, 2 and 3.

Page 44a-1, PILOT'S AND COPILOT'S INSTRUMENT PANELS - ILLUSTRATION

Add the above illustration which shall show ship effectivity 4 and 5, and the installation of Doppler indicator.

Page 44b, PILOT'S AND COPILOT'S PEDESTAL - ILLUSTRATION

Revise above illustration to show ship effectivity 1, 2 and 3.

Page 44b-1, PILOT'S AND COPILOT'S ILLUSTRATION

Add the above illustration which shall show ship effectivity 4 and 5, and the installation of a Doppler computer control panel.

Page 70, Paragraph 3.17.1 EQUIPMENT:

Change the below items under "Provisions for the following systems shall be made":

From: "Doppler Navigation System (Single)
Doppler Computer Mark I (Single)"

To: "*Doppler Navigation System (Single)
*Doppler Computer Mark I (Single)"

Add the following items under the description list:

"**Doppler Navigation System (Single) (Customer Furnished)
**Doppler Computer Mark I (Single) (Customer Furnished)

Add the following to bottom of page:

"*Effective Ships 1, 2 and 3.

**Effective Ships 4 and 5."

Page 71, Paragraph 3.17.1.1 CONTROL PANELS:

Add the following items under the description list:

"**Doppler Tracker (Customer Furnished)
**Doppler Navigation Computer (Customer Furnished)"

Change the below items under "Provisions for the following control panels shall be made":

From: "Doppler Sensor
Doppler Navigation Computer"

To: "*Doppler Sensor
*Doppler Navigation Computer"

Add the following to bottom of page:

"*Effective Ships 1, 2 and 3

**Effective Ships 4 and 5"

Page 80a, ANTENNA ARRANGEMENT - ILLUSTRATION

Revise above illustration to show ship effectivity 1, 2 and 3.

Page 80a-1, ANTENNA ARRANGEMENT - ILLUSTRATION

Add the above illustration which shall show ship effectivity 4 and 5, and the installation of a Doppler antenna.

Page 81, Paragraph 3.17.4.3 DOPPLER NAVIGATION SYSTEM (PROVISIONS):

Change the above paragraph title to read as follows:

"DOPPLER NAVIGATION SYSTEM (PROVISIONS) (Effective Ships 1, 2 and 3):"

Add the following new paragraphs:

"3.17.4.3 DOPPLER NAVIGATION SYSTEM (Effective Ships 4 and 5): Installation of one tracker unit (1/2 ATR Long) in accordance with ARINC Characteristics No. 540 shall be made in the radio rack. Installation of one transmitter/receiver (3/8 ATR Short) in accordance with ARINC Characteristics No. 540 shall be made in the fuselage as close as possible to the antenna."

"3.17.4.3.1 CONTROL (Effective Ships 4 and 5): Installation of one Doppler radar control panel shall be made in the pilot's and copilot's forward pedestal."

"3.17.4.3.2 INDICATOR (Effective Ships 4 and 5): Installation of a Doppler radar indicator (single system) shall be made in the pilot's and copilot's instrument panels."

"3.17.4.3.3 ANTENNA (Effective Ships 4 and 5): A Doppler antenna assembly consisting of an antenna wave guide, adapter and wiring shall be installed on the left hand wing outboard of the main landing gear wheel well. This antenna assembly shall also permit operation of a second Doppler system"

Page 81, Paragraph 3.17.4.4 DOPPLER NAVIGATION COMPUTER (PROVISIONS):

Change the above paragraph title to read as follows:

"DOPPLER NAVIGATION COMPUTER (PROVISIONS) (Effective Ships 1, 2 and 3):"

Add the following new paragraphs:

"3.17.4.4 DOPPLER NAVIGATION COMPUTER (Effective Ships 4 and 5): Installation of one (1/4 ATR Short) computer unit in accordance with ARINC Characteristics No. 543 shall be made in the radio rack."

"3.17.4.4.1 CONTROL (Effective Ships 4 and 5): Installation of a Doppler navigator computer controller shall be made in the pilot's and copilot's forward pedestal."

Page A-1, APPENDIX I-A, CUSTOMER FURNISHED - CONVAIR INSTALLED:

(*Rev 22-03537*)
Add the following items to the equipment list under a new heading as follows:

ELECTRONICS

DOPPLER NAVIGATION

ø1 Receiver/Transmitter	Bendix	-11 RTA-12A
ø1 Tracker Unit	Bendix	-13 DRA-12A
ø1 Navigation Computer	Bendix	-15 CPA-24A
ø1 Computer Controller	Bendix	-9 CNA-24B-1
ø1 Control Unit	Bendix	-7 CNA-12B-1
ø1 Adapter Assembly	Bendix	-5 ADA-12C-2
ø1 Antenna (Dual)	Bendix	-3 ANA-12C
ø2 Indicator (Clamp Mounted)	Bendix	-1 INA-12B-1

Add the following to the bottom of page:

"øEffective Ships 4 and 5."

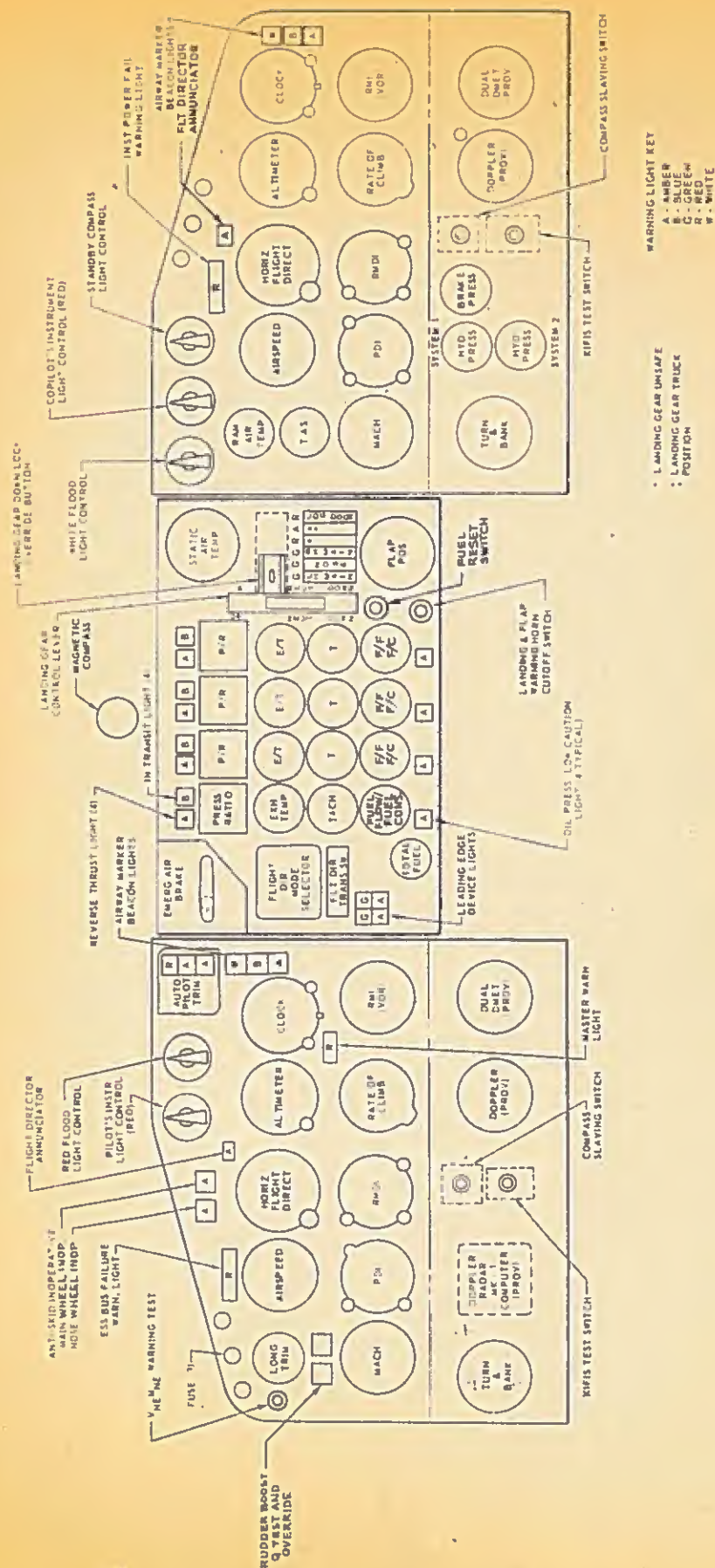
- Enclosures: (A) One copy Page 44a and 44a-1 - PILOT'S AND COPILOT'S
INSTRUMENT PANELS
- (B) One copy Page 44b and 44b-1 - PILOT'S AND COPILOT'S
PEDESTAL
- (C) One copy Page 80a and 80a-1 - ANTENNA ARRANGEMENT

The following shall not appear in the specification language:

Handbooks and manuals will not be revised to reflect the above
changes.

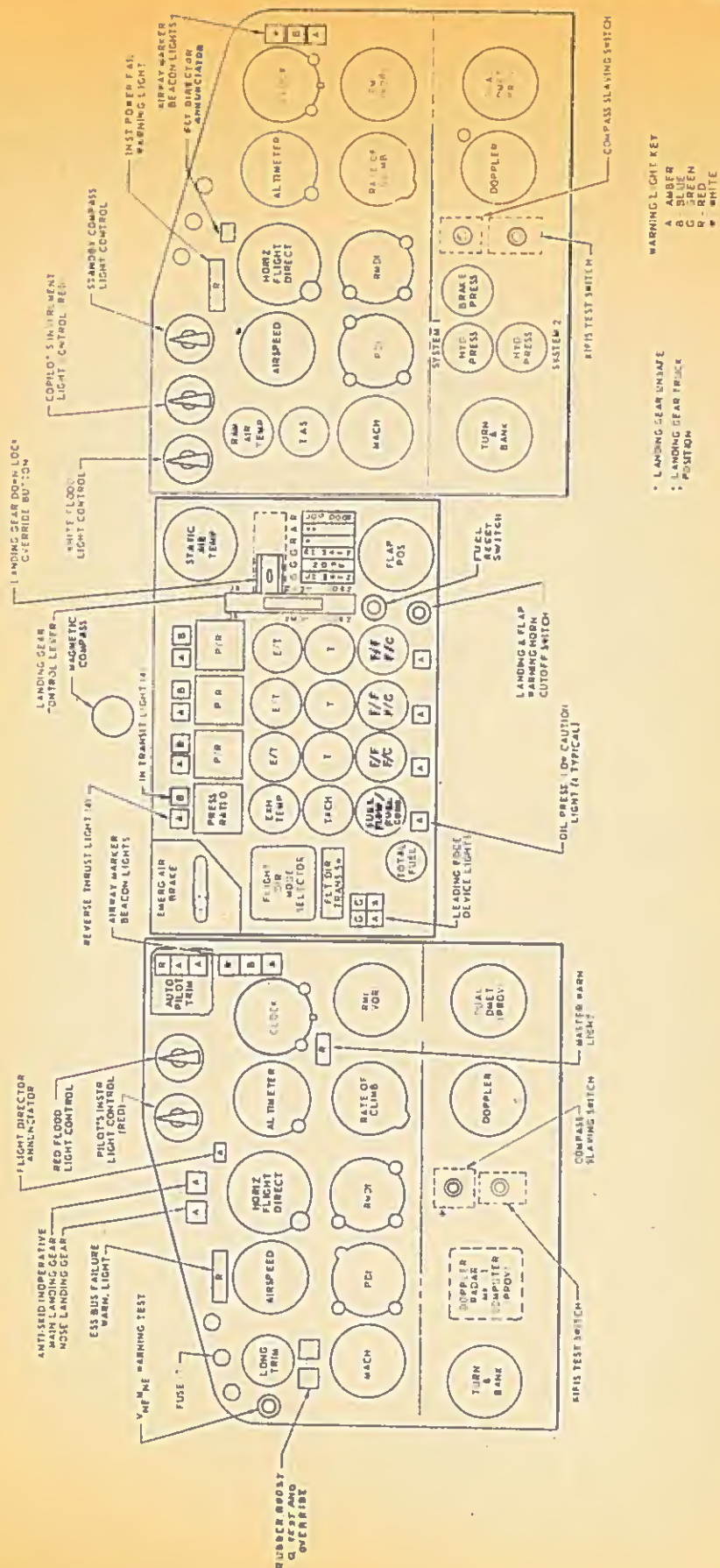
Effect on Weight Empty: +101.0 pounds
Effect on Balance: +66,293 inch-pounds
Effect on Performance: None

3/18
3/31
6/32A



CONVAIR: SD

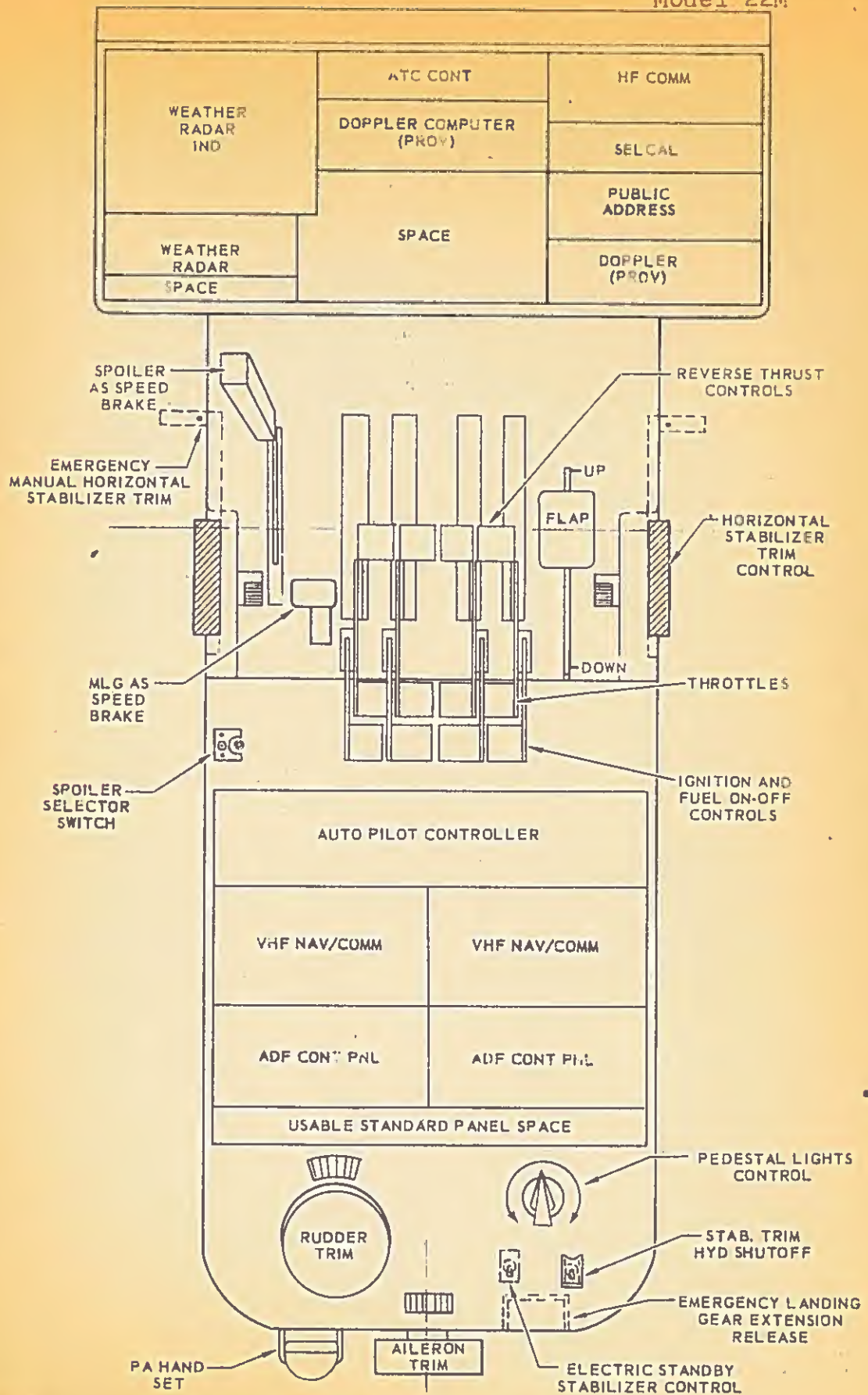
Page 44a-1
Report No. ZD-22-322
Model 22M



PILOT'S AND COPILOT'S INSTRUMENT PANELS

P-20-61

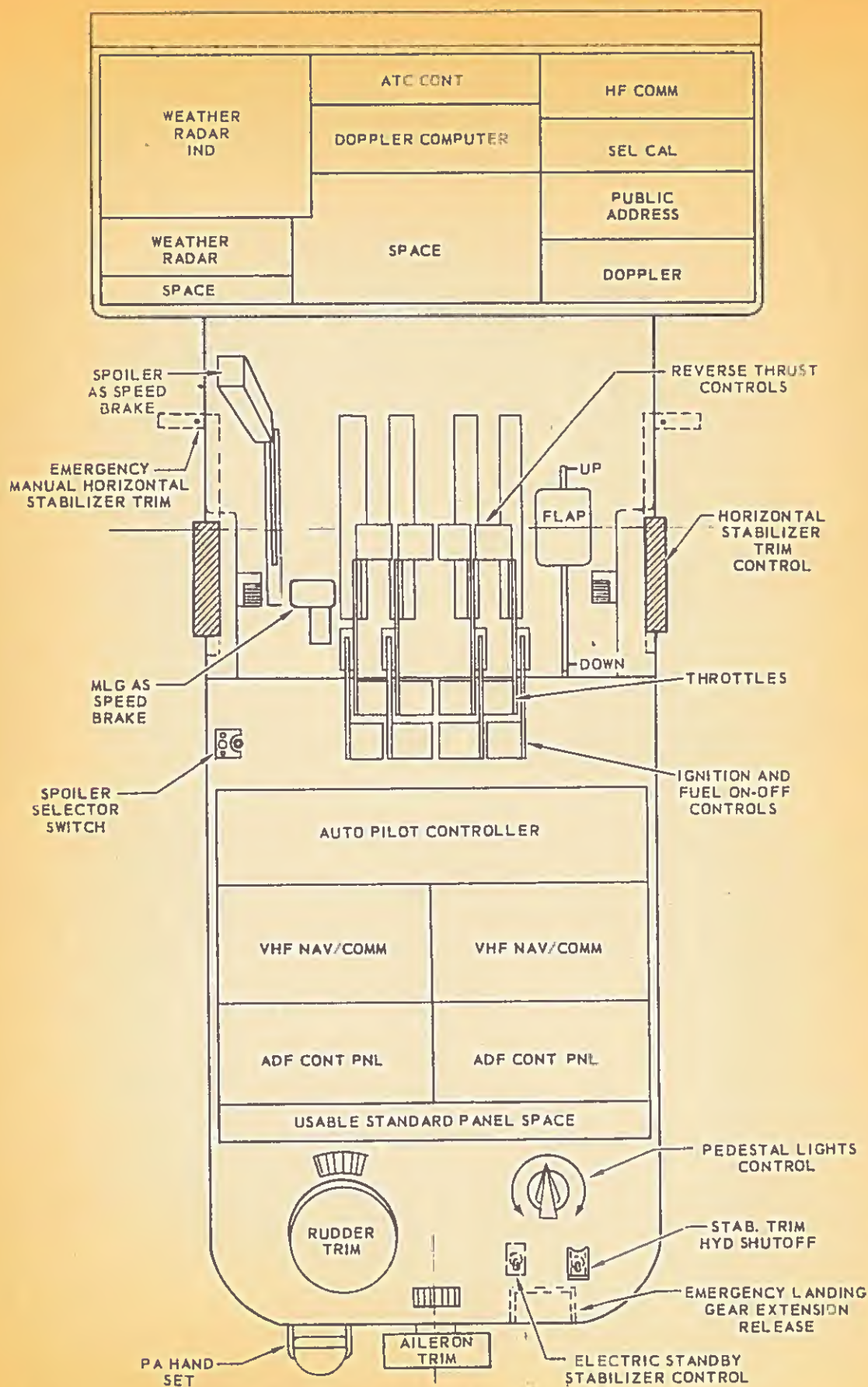
3/18



5021F 7-21-60

PILOT'S AND CO-PILOT'S PEDESTAL

JAPAN
(EFFECTIVE SHIPS 1, 2 AND 3)



PILOT'S AND CO-PILOT'S PEDESTAL

 JAPAN
 (EFFECTIVE SHIPS 4 AND 5)

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD-22-322 DATE _____

CUSTOMER: Japan Air Lines MCL 15,119 DTD _____

CHANGE NO. 79 MODEL: 22-22 (Convair "880")

TITLE: **ATC Marker Beacon Panel, Revision to**

ORIGIN: **Customer request**

REASON FOR CHANGE: **As above**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH L.B.

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Ready 8/9/61 *Aug 8/9/61*

ENGINEERING APPROVAL
NS

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: ATC Marker Beacon Panel, Revision to

Origin: Customer request

Reason for Change: As above

Description of Change:

Page A-11, Appendix I-C, ELECTRONIC EQUIPMENT:

<u>From:</u>	"1 Dual ATC Transponder Beacon Control Panel	Gables	G-565"
<u>To:</u>	"*1 Dual ATC Transponder Beacon Control Panel	Gables	G-565
	**1 Dual ATC Transponder Beacon Control Panel	Gables	G-565A"

Add the following to the bottom of page:

" *Effective Ships 1, 2 and 3.

**Effective Ships 4 and on."

The following not to appear in the specification language:

Provisions shall be made for on-off-dimming of the marker
beacon panel light from the pedestal control switch.

Effect on Weight Empty:	0
Effect on Balance:	0
Effect on Performance:	0

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322 DATE: _____

CUSTOMER: Japan Air Lines MCL 15,117 DTD _____

CHANGE NO.: 78 MODEL: 22-22 (Convair "880")

TITLE: **External Power Circuit Change**

ORIGIN: **Customer request**

REASON FOR CHANGE: **As above**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+5.0 lb	+5.0 lb	+1,825 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Ready 7/24/61 *Aug 7/24/61*
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: _____ CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: External Power Circuit Change

Origin: Customer request

Reason for Change: As above

Description of Change:

Page 56, Paragraph 3.16.5.10 WIRE IDENTIFICATION:

Delete the period after the first sentence and add the following:

"except, that wire identification code numbers in the external power receptacles and junction box circuits will not conform to Specification 0-9001."

Page 66, Paragraph 3.16.10.3 EXTERNAL POWER:

Add the following after the first sentence:

"28V DC power, derived from aircraft 115v ac system shall be supplied to ground power unit through external power receptacle to control ground power main contactor."

The following shall not appear in the specification language:

Handbooks and manuals will not be revised to reflect the above change.

Effect on Weight Empty:	+5.0 pounds
Effect on Balance:	+1,825 inch-pounds
Effect on Performance:	None

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

SPEC NO.: ZD- 22-322 DATE: _____
CUSTOMER: Japan Air Lines MCL 15,033 DTD _____
CHANGE NO: 77A MODEL: 22-22 (Convair "880")

[illegible]

Title: Specification Administrative Change (Revision to Lavatory Coat Hook)

Origin: Convair initiated

Reason for Change: To clarify the intent of the specification and revision to CCP No. 77

Description of Change:

Page 86, Paragraph 3.19.2.2.3 MISCELLANEOUS LAVATORY EQUIPMENT:

Revise below item as follows:

From: "One coat hook (folding-type on lavatory door)"

To: "One coat hook"

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

MODEL: 22-22 (Convair "880")

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-327

DATE: _____

CUSTOMER: JAPAN AIR LINES

MCL 15,038 DTD 5 June 1963

CHANGE NO: 94

MODEL: 22-3 Ship #46 (Convair 880)

TITLE: Specification Administrative Change (Part Number Revision to Various Instruments)

ORIGIN: Convair initiated

REASON FOR CHANGE: To reflect actual instrument part numbers installed in the airplane.

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

0

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:



ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Specification Administrative Change (Part Number Revision to Various Instruments)

Origin: Convair initiated

Reason for Change: To reflect actual instrument part numbers installed in the airplane.

Description of Change:

Page A-4, APPENDIX I-C - INSTRUMENTS AND RELATED EQUIPMENT

Under - Flight Instruments

<u>Change:</u>	"2	Indicator, Turn and Bank	Pioneer-Central	3924-1AG-B1-1
<u>To:</u>	ø2	Indicator, Turn and Bank	Pioneer-Central	3924-1AG-C1-1
	2	Indicator, Turn and Bank	Pioneer Central	3924-1AG-B1-1"

Add the following note to bottom of page:

"NOTE: ø = Installed in 22-3 Ship #4 only."

Page A-5, APPENDIX I-C - INSTRUMENTS AND RELATED EQUIPMENT

Under - Kollsman Integrated Flight Instrument System

<u>Change:</u>	"2	Indicator, Airspeed	Kollsman	B34627-10-031
<u>To:</u>	ø2	Indicator, Airspeed	Kollsman	B34627-10-046
	2	Indicator, Airspeed	Kollsman	B34627-10-031"
<u>Change:</u>	"2	Indicator, Machmeter	Kollsman	A29247-10-006
<u>To:</u>	ø2	Indicator, Machmeter	Kollsman	A29247-10-014
	2	Indicator, Machmeter	Kollsman	A29247-10-006"

Add the following note to bottom of page:

"NOTE: ø = Installed in 22-3 Ship #4 only."

Page A-7, APPENDIX I- C - INSTRUMENTS AND RELATED EQUIPMENT

Under - Engine Instruments - Oil System

<u>Change:</u>	"4	Indicator, Oil Pressure	U. S. Gauge	SR-04B
<u>To:</u>	4	Indicator, Oil Pressure	U. S. Gauge	SR-04A"

Title: Bleed Duct Pressure System Transmitter Mount and Bracket,
Installation of (For Airplanes 4 and 5)

Origin: JAL Letter SANQA-X-273, dated 23 May 1961

Reason for Change: Customer request and revision to CCP No. 76.

Description of Change:

The specification language is not affected by this change which proposes to install provisions for a bleed duct pressure system transmitter consisting of the following items:

- a. A support housing and bracket.
- b. A Robinson shock-mount.

Effect on Weight Empty: +1.0 pound
Effect on Balance: +645 inch-pound
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,113 DTD 24 May 1961

CHANGE NO.: 76

MODEL: 22-22 (Convair "880")

TITLE: Bleed Duct Pressure Indicator, Installation of (For Airplanes 4 and 5)

ORIGIN: JAL Letter SANQA-X-273, dated 23 May 1961

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+6.0 lb	+6.0 lb	+3,289 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Ready 7/21/61
epo.
Ang 7/21/61

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Bleed Duct Pressure Indicator, Installation of (For Airplanes 4 and 5)

Origin: JAL Letter SANQA-X-273, dated 23 May 1961

Reason for Change: Customer request

Description of Change:

Page 45, Paragraph 3.14.1.4 FLIGHT ENGINEER'S INSTRUMENTS:

Add the following item to the instrument list:

"**One Bleed Duct Pressure Indicator"

Add the following to the bottom of Page 45:

"**Effective Ships 4 and 5"

Page A-7, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Add the following item under "PRESSURIZATION, HEATING AND AIR CONDITIONING":

"*1 Indicator, Bleed Duct Pressure U. S. Gauge SR-05A"

Add the following to the bottom of Page A-7:

"*Effective Ships 4 and 5"

Effect on Weight Empty: +6.0 pounds
Effect on Balance: +3,289 inch-pounds
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,116 DTD 21 June 1961

CHANGE NO. 75

MODEL: 22-22 (Convair "880")

TITLE: Dimming Feature in Forward L.H. Lavatory Light Circuit, Installation of

ORIGIN: Japan Air Lines Letter SANQA-X-334 dated 19 June 1961

REASON FOR CHANGE: Customer requested

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

Negligible

Negligible

Negligible INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Ready 7/13/61

Day 7/13/61

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Dimming Feature in Forward L.H. Lavatory Light Circuit,
Installation of

Origin: Japan Air Lines Letter SANQA-X-334 dated 19 June 1961.

Reason for Change: Customer request

Description of Change:

Page 63 (Cont), Paragraph 3.16.8.3.6 SIGNS:

Revise the paragraph into two paragraphs, as follows, to indicate airplane effectivity:

"3.16.8.3.6 SIGNS (Effective on Airplanes 1 through 3): Illuminated and legible "NO SMOKING" and "FASTEN SEAT BELT" signs shall be provided in the passenger compartment and a "RETURN TO CABIN" sign shall be provided in each lavatory. A switch for the "NO SMOKING" and "FASTEN SEAT BELT" shall be located in the pilot compartment. The switch shall be a three-position "OFF" center type. The forward position shall be labeled "NO SMOKING AND FASTEN SEAT BELT". The aft position shall be labeled "FASTEN SEAT BELT". Electrically lighted signs shall be plainly legible to passengers under all conditions of ambient light encountered. Illuminated lavatory "OCCUPIED-VACANT" signs shall be installed for each lavatory so as to be plainly visible to passengers. The signs shall be energized when the lavatory door lock is actuated. The locked position shall indicate "OCCUPIED" and the unlocked position shall indicate "VACANT". Reference 3.2.5 for bilingual, trilingual description.

3.16.8.3.6 SIGNS (Effective on Airplanes 4 and 5): Illuminated and legible "NO SMOKING" and "FASTEN SEAT BELT" signs shall be provided in the passenger compartment and a "RETURN TO CABIN" sign shall be provided in each lavatory. A switch for the "NO SMOKING" and "FASTEN SEAT BELT" shall be located in the pilot compartment. The switch shall be a three-position "OFF" center type. The forward position shall be labeled "NO SMOKING AND FASTEN SEAT BELT". The aft position shall be labeled "FASTEN SEAT BELT". Electrically lighted signs shall be plainly legible to passengers under all conditions of ambient light encountered. Illuminated lavatory "OCCUPIED-VACANT" signs shall be

installed for each lavatory so as to be plainly visible to passengers. The signs shall be energized when the lavatory door lock is actuated. The "OCCUPIED-VACANT" light circuit in the forward left hand lavatory shall be provided with a dimming feature controlled by a protected "BRIGHT-DIM" switch located in the forward left hand hat rack. The locked position shall indicate "OCCUPIED" and the unlocked position shall indicate "VACANT". Reference 3.2.5 for bilingual, trilingual description.

Effect on Weight Empty:	Negligible
Effect on Balance:	Negligible
Effect on Performance:	None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322 DATE: _____
 CUSTOMER: Japan Air Lines MCL 15,112 DTD 23 May 1961
 CHANGE NO.: 74 MODEL: 22-22 (Convair "880")

TITLE: Loadable Cargo Size Charts, Furnishing of

ORIGIN: JAL AVO, dated 26 April 1961

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	O INCH LB.
O	O	

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Ready 6/14/61 *Aug 13/61*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____
 NON-RECURRING: _____
 TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY _____

DATE: _____

GENERAL DYNAMICS/CONVAIR

Japan Air Lines
Change No. 74

Title: Loadable Cargo Size Charts, Furnishing of

Origin: JAL AVO, dated 26 April 1961

Reason for Change: Customer request

Description of Change:

The specification language is not affected by this change which proposes to furnish data charts listing permissible cargo sizes that may be loaded into both the forward and aft cargo compartments.

Effect on Weight Empty:	0
Effect on Balance:	0
Effect on Performance:	None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: JAPAN AIR LINES

MCL 15,032 DTD _____

CHANGE NO: 73

MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Revision to Paragraph 3.2.2.1)

ORIGIN: Convair initiated

REASON FOR CHANGE: Specification clarification.


EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:


ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE: _____

AIRPLANES AFFECTED: _____

SPECIAL PROVISIONS: _____

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 73

Title: Specification Administrative Change (Revision to Paragraph 3.2.2.1)

Origin: Convair initiated

Reason for Change: Specification clarification.

Description of Change:

Page 9, Paragraph 3.2.2.1 COLOR CODING:

Revise the paragraph as follows:

From: "COLOR CODING: All sections of plumbing shall be color coded and banded in accordance with Military Standards and, in addition, marking shall indicate the direction of flow and the purpose of the line. The part number of each tubing assembly shall be identified. Color bands and part number identifications shall be plastic tape in accordance with Standard AND 10375."

To: "COLOR CODING: All sections of plumbing, except engine and within fuel tanks, shall be color coded and banded. All plumbing shall indicate the direction of flow and the purpose of the line. The part number of each tubing assembly shall be identified. Color bands shall be plastic tape in accordance with Standard AND 10375."

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,108 DTD 13 March 1961

CHANGE NO. 72

MODEL: 22-22 (Convair "880")

TITLE: Cabin Rate of Climb Indicator, Change to

ORIGIN Japan Air Lines Letter SANQA-X-131, dated
10 March 1961

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

Negligible

Negligible

Negligible

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND
TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Ready 4/18/61 *4/18/61*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

CONVAIR: SD

Japan Air Lines
Change No. 72

Title: Cabin Rate of Climb Indicator, Change to

Origin: Japan Air Lines Letter SANQA-X-131, dated 10 March 1961.

Reason for Change: Customer request

Description of Change:

Page A-7, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Revise the below item under "PRESSURIZATION, HEATING AND AIR
CONDITIONING" as follows:

<u>From:</u>	"1 Indicator, Cabin Rate of Climb	Kollsman	DO-7165-10-055
<u>To:</u>	"1 Indicator, Cabin Rate of Climb	Bendix-Pioneer	1653-6AB-A6-1"

Effect on Weight Empty:	Negligible
Effect on Balance:	Negligible
Effect on Performance:	None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,107 DTD Revised 31 March 1961

CHANGE NO.: 71

MODEL: 22-22 (Convair "880")

TITLE: Crew Oxygen Mask, Change to

ORIGIN: Japan Air Lines Letters: SANQA-X-116 dated 3-1-61, and
SANQA-X-170 dated 3-29-61.

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

+1.0 lb

+1.0 lb

+253

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND
TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

 4/14/61
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 71

Title: Crew Oxygen Mask, Change to

Origin: Japan Air Lines Letters: SANQA-X-116 dated 3-1-61, and
SANQA-X-170 dated 3-29-61.

Reason for Change: Customer request

Description of Change:

Page A-16, APPENDIX I-C, OXYGEN EQUIPMENT:

Revise the below item under "Description" as follows:

<u>From:</u>	"5 Mask, Supplemental Oxygen	Sierra	358-158"
<u>To:</u>	"5 Mask, Supplemental Oxygen, Includes:	ARO	23808-100-DM
	(1) 5 Oxygen Hose	ARO	23808-120K
	(2) 5 Magnetic Mikes	Carter	CE-200D"

Effect on Weight Empty: +1.0 pound
Effect on Balance: +253 inch-pounds
Effect on Performance: None

The following shall not appear in the specification language:

Should the ARO 23808-120K oxygen hose not be suited for mating with the airplane connection, ARO will provide an oxygen hose which shall be compatible therewith.

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,031 DTD _____

CHANGE NO: 70

MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Revision to Fuel Flow Transmitter P/N)

ORIGIN: Convair initiated

REASON FOR CHANGE: See statement at the end of this CCP.

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

0

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Signature] 4/12/61
ENGINEERING APPROVAL
N.T.

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR, S.D. 0-1817A

CONVAIR: SD

Japan Air Lines
Change No. 70

Title: Specification Administrative Change (Revision to Fuel Flow Transmitter P/N)

Origin: Convair initiated

Reason for Change: See statement at the end of this CCP.

Description of Change:

Page A-5, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Revise the below item under "ENGINE INSTRUMENTS - FUEL SYSTEM" as follows:

<u>From:</u>	"4 Transmitter, Fuel Flow	Gen. Elec.	8TJ59GAR-3"
<u>To:</u>	"4 Transmitter, Fuel Flow	Gen. Elec.	8TJ59GBB-3"

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

The following shall not appear in the specification language:

The language effect of CCP No. 32A (Installation of G.E. Fuel Flow Totalizer) as concerns the subject item is included in this paragraph.

The part number (8TJ59GAR-3) submitted for fuel flow transmitter in CCP No. 32A was for the basic transmitter, which when modified to make compatible with Japan Fuel Totalizer system is now re-identified as G.E. 8TJ59GBB-3. This part number change is required to properly identify the units.

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

DATE: _____

MCL 15,030 DTD

MODEL: 22-22 (Convair "880")

— 225 —

CONVAIR: SD

Japan Air Lines
Change No. 69

Title: Specification Administrative Change (Landing Gear Pin Indicator Lights)

Origin: Convair initiated

Reason for Change: To specify that subject indicator lights are installed.

Description of Change:

Page 22, Paragraph 3.8.1.5 LANDING GEAR SAFETY LOCK PINS:

Add the following to the end of the paragraph:

"Indicator warning lights shall be provided in the flight engineer's panel and shall be illuminated when the "safety lock" pins are inserted in the gear."

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,029 DTD _____

CHANGE NO: 68

MODEL: 22-22 (Convair "880")

TITLE: **Specification Administrative Change (Revision to Instrument Part Numbers)**

ORIGIN: **Convair initiated**

REASON FOR CHANGE: **See statement at the end of this proposal**



EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

 4/4/61,  4/4/61
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE: _____

AIRPLANES AFFECTED: _____

SPECIAL PROVISIONS: _____

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Specification Administrative Change (Revision to Instrument Part Numbers)

Origin: Convair initiated

Reason for Change: See statement at the end of this proposal.

Description of Change:

Page A-4R, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Revise the below item under "SPERRY FLIGHT NAVIGATION SYSTEM" as follows:

<u>From:</u>	"1 Flight Director Computer (Z-5)	Sperry	1780607
<u>To:</u>	"1 Flight Director Computer (Z-5)	Sperry	1780607-1"

Page A-7, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Revise the below item under "HYDRAULIC AND PNEUMATIC" as follows:

<u>From:</u>	"1 Indicator, Emergency U.S. Gauge Air Brake Pressure	AW1826-AD02"
<u>To:</u>	"1 Indicator, Emergency U.S. Gauge Air Brake Pressure	(P/N to be supplied)

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

The following shall not appear in the specification language:

The change to part number of the flight director computer was established by the vendor as the current part number.

A change to part number of emergency air brake pressure indicator is required due to change in pressure reading from 3,000 psi to 4,000 psi. This part number will be supplied when made available to the vendor.

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,104 DTD _____

CHANGE NO. 67A

MODEL: 22-22 (Convair "880")

TITLE: Kollsman Integrated Flight Instrument System, Change to

ORIGIN: JAL Letter, SANQA-X-90, dated 20 February 1961

REASON FOR CHANGE: Customer request and revision to CCP No. 67A.

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

0

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Ready 8/6/61 *long slat*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Kollsman Integrated Flight Instrument System, Change to

Origin: JAL Letter, SANQA-X-90, dated 20 February 1961

Reason for Change: Customer request and revision to CCP No. 67.

Description of Change:

Page A-5, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Revise the below items under "KOLLSMAN INTEGRATED FLIGHT INSTRUMENT SYSTEM" as follows:

<u>From:</u>	"2 Altimeter and Scale Error Corrector Set	Kollsman	A32667-10-001
	1 Control Chassis, including Computer	Kollsman	A30720-00-001"
<u>To:</u>	"*2 Altimeter and Scale Error Corrector Set	Kollsman	A32667-10-001
	*1 Control Chassis, including Computer	Kollsman	B30720-00-004
	**2 Altimeter and Scale Error Corrector Set (drum-pointer-type)	Kollsman	A32647-10-001
	**1 Control Chassis Assembly, Includes:	Kollsman	B33280-00-004
	1 Control Chassis	Kollsman	B32140-00-001
	2 Computer Unit (for pilot and copilot)	Kollsman	A30710-00-008
	8 Amplifier	Kollsman	B27710-00-003"

Add the following note to the bottom of page:

"*Effective Ships 1, 2 and 3.

**Effective Ships 4 and 5."

The following shall not appear in the specification language:

Handbooks and manuals will not be revised to reflect the ship split effectivity for the above change.

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,105 DTD 1 March 1961

CHANGE NO: 66

MODEL: 22-22 (Convair "880")

TITLE: ATC Transponder and DMET Power System Control, Change to

ORIGIN: JAL Letter, SANQA-X-101, dated 27 February 1961

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

0

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Signature] 4/4/61 *[Signature]* 4/4/61

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: ATC Transponder and DMET System Power Control, Change to

Origin: JAL Letter, SANQA-X-101, dated 27 February 1961

Reason for Change: Customer request

Description of Change:

Page 75, Paragraph 3.17.1.7.1 POWER CONTROLS:

Revise the second and third sentences as follows:

From: "The "NORMAL" switch shall control the weather radar, the marker beacon, selective call systems No. 1 and No. 2, glide slope No. 2, navigation instrument transformer No. 2, VHF navigation No. 2, radio compass No. 2, VHF communication receiver No. 2, VHF communication transmitter No. 2, HF communication No. 2, DMET No. 1 and No. 2 if installed, and ATC transponder No. 1 and No. 2, if installed. The "ESSENTIAL" switch shall control the Edo Loran system, VHF communication receiver No. 1, VHF communication transmitter No. 1, VHF navigation No. 1, glide slope No. 1, radio compass No. 1, navigation instrument transformer No. 1, HF communication No. 1, and the Doppler system tracker and computer, if installed."

To: "The "NORMAL" switch shall control the weather radar, the marker beacon, selective call systems No. 1 and No. 2, glide slope No. 2, navigation instrument transformer No. 2, VHF navigation No. 2, radio compass No. 2, VHF communication receiver No. 2, VHF communication transmitter No. 2, HF communication No. 2, DMET No. 2 if installed, and ATC transponder No. 2, if installed. The "ESSENTIAL" switch shall control the Edo Loran system, VHF communication receiver No. 1, VHF communication transmitter No. 1, VHF navigation No. 1, glide slope No. 1, radio compass No. 1, navigation instrument transformer No. 1, HF communication No. 1, DMET No. 1 if installed, ATC transponder No. 1 if installed, and the Doppler sensor and the Doppler navigation computer, if installed."

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

The following shall not appear in the specification language:

The language effects of CCP No. 54 (Revision to Par. 3.17.1.7.1) and CCP No. 61 (Various Changes to Electronic Items Language) are included in this proposal. CCP No. 54 has been approved by Customer; however, this proposal is based on prior Customer approval of CCP No. 61.

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,016 DTD 1 March 1961

CHANGE NO.: 65

MODEL: 22-22 (Convair "880")

TITLE: Loran Receiver Connection, Relocation of

ORIGIN: JAL Letter, SANQA-X-102, dated 27 February 1961

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Signature] 4/4/61 *[Signature]*

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 65

Title: Loran Receiver Connection, Relocation of

Origin: JAL Letter SANQA-X-102, dated 27 February 1961.

Reason for Change: Customer request

Description of Change:

The specification language is not effected by this change which proposes to relocate the Loran Receiver antenna lead from No. 1 HF Coupler Accessory Unit to No. 2 HF Coupler Accessory Unit.

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,028 DTD _____

CHANGE NO: 64

MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Typographical Corrections and Revision to Oxygen Regulator P/N)

ORIGIN: Convair initiated

REASON FOR CHANGE: To correct typographical errors and to provide current part number for oxygen regulator as established by Vendor.

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

0

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Signature] 3/21/61 *[Signature]* 3/21/61
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

COMMERCIAL CHANGE PROPOSAL

22-322

DATE

Japan Air Lines

Wt 15,102 01, 16 February

60

MODEL 22-22 (Convair "680")

VHF Receivers, Change to

Japan Air Lines verbal request on 16 February 1961

As above

EFFECT ON WEIGHT

EFFECT ON BALANCE

0	0
---	---

0

WARRANTIES PERFORMANCE

None

CHANGES WILL BE ACCUMULATED AND
INCLUDED IN A FUTURE CHANGE PROPOSAL

THIS CHANGE IS DEPENDENT UPON
THE MAKING OF THE FOLLOWING CHANGES

Handwritten signature 3/1/61
ENGINEER IN CHARGE

APPROVAL

AIRPLANES AFFECTED

EFFECT ON PRICE PER AIRPLANE

RECURRING

NON-RECURRING

TOTAL

CONV. 22-22 IS 50 OF GENERAL DAILY V. 22

Subject: VHF Receivers, Change to

Request: Japan Air Lines verbal request on 16 February 1961

Reason for Change: As above

Description of Change:

Form A-9, APPENDIX I-C, ELECTRONIC EQUIPMENT:

Revise the below item under "VHF NAVIGATION SYSTEM" as follows:

<u>From:</u>	"2 Receiver (AC Power)	Collins	51X-2"
<u>To:</u>	"2 Receiver (522-0833-064, AC Power)	Collins	51X-2"

Revise the below item under "VHF COMMUNICATION" as follows:

<u>From:</u>	"2 Receiver (AC Power)	Collins	51X-2"
<u>To:</u>	"2 Receiver (522-0833-064, AC Power)	Collins	51X-2"

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,024 DTD _____

CHANGE NO.: 58

MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Revision to Passenger Seat Back Movement)

ORIGIN: Convair initiated

REASON FOR CHANGE: To make specification language agree with actual seat back positioning capability.

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Signature] 7/20/61 Aug 2/20/64

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS.

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 58

Title: Specification Administrative Change (Revision to Passenger
Seat Back Movement)

Origin: Convair initiated

Reason for Change: To make specification language agree with actual
seat back positioning capability.

Description of Change:

Page 83, Paragraph 3.19.1.1.6.1 SEAT BACK MOVEMENT:

Starting with the third sentence ("The seat back shall fold further") delete the remainder of the paragraph and substitute the following:

"The seat back shall fold to approximately 30 degrees forward of the vertical position by applying a load of not less than 30 pounds, or more than 35 pounds, at the top of aft side of the seat back without removing the center arm rest. The seat back may be further folded to approximately a horizontal position by removing the center arm rest. Seat back positions shall be as follows:

First Class Seats:

Normal Upright: 15 degrees aft of vertical

Adjustable Stops at: 38 and 45 degrees aft of vertical

Coach Seats:

Normal Upright: 15 degrees aft of vertical

Adjustable Stops at: 23 and 38 degrees aft of vertical"

Effect on Weight Empty: 0

Effect on Balance: 0

Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,101 DTD 24 January 1961

CHANGE NO: 57

MODEL: 22-22 (Convair "380")

TITLE: Seat Arm Rest Section Aft of Emergency Escape Hatch; Removal of

ORIGIN: Japan Air Lines request

REASON FOR CHANGE: As above

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
-5.0 lbs	-5.0 lbs.	-3,535 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

CCP No. 49

[Handwritten Signature] ^{2/15/61}

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY _____

DATE: _____

Title: Seat Arm Rest Sections Aft of Emergency Escape Hatch, Removal of

Origin: Japan Air Lines requested

Reason for Change: As above

Description of Change:

Page 104, Paragraph 3.23.2 - EQUIPMENT INTERCHANGEABILITY:

Delete the asterisks from the following items under "a.

Interchangeable Parts"

"**Passenger Seat Assembly R-H

**Passenger Seat Assembly L-H"

Delete the following note from the bottom of Page 104:

"**NOTE: Passenger seats immediately aft of the escape hatches shall have special outboard arm rests; however they will be interchangeable in all other respects".

Effect on Weight Empty: -5.0 lbs.

Effect on Balance: -3,535 in. lbs.

Effect on Performance: None

The following shall not appear in the specification language.

"This proposal deletes the integral arm rest sections on the fuselage in the area aft of the emergency escape hatches. The two outboard seats (one L.H. and one R.H.) just aft of the emergency escape hatches, will be replaced with typical coach seats with standard arm rests; thereby making them interchangeable with existing similar seats. This proposal is based on coach seats being presently installed as defined in CCP No. 49 (Modification of Passenger Seating Configuration); therefore, this change is contingent on prior acceptance of CCP No. 49".

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322 DATE: _____
CUSTOMER: Japan Air Lines MCL 15,023 DTD _____
CHANGE NO: 56 MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Revision to Paragraphs 3.10.1.5.1 and 3.11.8)

ORIGIN: Convair initiated

REASON FOR CHANGE: To clarify the intent of subject paragraphs.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Signature] 7/6/61 *[Signature]* 2/6/61
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____
NON-RECURRING: _____
TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Specification Administrative Change (Revision to Paragraphs 3.10.1.5.1 and 3.11.8)

Origin: Convair initiated

Reason for Change: To clarify the intent of subject paragraphs.

Description of Change:

Delete the last two sentences and substitute the following:

"A switch, guarded in the on position, shall be installed on the pedestal to shut off all hydraulic power to the stabilizer screw jack. A three-position momentary switch shall be installed on the pedestal which, after the hydraulic shutoff switch is moved to "OFF", operates the standby electrical-mechanical stabilizer trim control. In addition, hand cranks shall be installed on the pedestal for emergency manual stabilizer trim control."

Page 30, Paragraph 3.11.8 INSPECTION AND MAINTENANCE:

Delete the last sentence and substitute the following:

"Each engine QEC (quick engine change build-up) shall be interchangeable and replaceable as a complete assembly, except for reverser cascades, and certain accessories which may not be required on individual installations."

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR: SD

Japan Air Lines
Change No. 64

Title: Specification Administrative Change (Typographical Corrections and Revision to Oxygen Regulator P/N)

Origin: Convair initiated

Reason for Change: To correct typographical errors and to provide current part number for oxygen regulator as established by Vendor.

Description of Change:

Page 2, Paragraph 2.3 APPLICABLE CONVAIR SPECIFICATION:

In second line from bottom of page, change "Electroni" to "Electronic".

Page 11, Paragraph 3.2.6 OPERATING TEMPERATURE:

In second line of first sentence, change "soacked" to "soaked".

Page 46, Paragraph 3.14.3.2.1 STATIC SOURCES:

In first line of first sentence, change "loacted" to "located".

Page A-16, APPENDIX I-C, OXYGEN EQUIPMENT:

Revise the below item as follows:

<u>From:</u>	"5 Regulator	ARO Equipment	15830"
<u>To:</u>	"5 Regulator	ARO Equipment	15830A"

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322 DATE: _____
 CUSTOMER: Japan Air Lines MCL 15,103 DTD 24 February 1961
 CHANGE NO: 63 MODEL: 22-22 (Convair "880")

TITLE: Tie-Down Bolts, Reduction of in No. 2 Buffet

ORIGIN: Japan Air Lines Letter (SANQA-X-98), Mitsuoka to Chambers, dated 23 February 1961


REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	Negligible INCH LB.
Negligible	Negligible	

EFFECT ON GUARANTEED PERFORMANCE: * None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

 7/7/61

ENGINEERING APPROVAL Yes

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____
 NON-RECURRING: _____
 TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 63

Title: Tie-Down Bolts, Reduction of in No. 2 Buffet

Origin: Japan Air Lines Letter (SANQA-X-98), Mitsuoka to Chambers,
dated 23 February 1961

Reason for Change: Customer request

Description of Change:

This proposal has no effect on specification language which reduces the number of tie-down bolts in No. 2 Buffet from 24 to 18.

Effect on Weight Empty:	Negligible
Effect on Balance:	Negligible
Effect on Performance:	None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,027 DTD _____

CHANGE NO: 62

MODEL: 22-22 (Convair "880")

TITLE: **Specification Administrative Change (Revision to Par. 3.19.1.1.3 and to Appendix I-C)**

ORIGIN: **Convair initiated**

REASON FOR CHANGE: **To clarify the intent of the specification.**

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

0

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Signature] 3/13/61 *[Signature]* 3/13/61

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Specification Administrative Change (Revision to Par. 3.19.1.1.3 and to Appendix I-C)

Origin: Convair initiated

Reason for Change: To clarify the intent of the specification

Description of Change:

Page 83, Paragraph 3.19.1.1.3 - OBSERVER'S SEAT:

Revise the first sentence as follows:

From: "A folding-type seat aft of the third pilot shall be installed for use by an observer".

To: "A folding-type seat shall be installed aft of the navigator's seat for use by an observer".

Page A-4R, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Delete the below items under "FLIGHT INSTRUMENTS:"

"2	Indicator Light Power Failure	Convair
2	Detector Unit, Power Failure	Convair"

Page A-8, ELECTRICAL EQUIPMENT:

Add the following item under "ELECTRICAL POWER EQUIPMENT":

"2	Indicator Light, Power Failure	Korry	ST753-E6"
----	--------------------------------	-------	-----------

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

The following shall not appear in the specification language:

The revision to Paragraph 3.19.1.1.3 corrects an error which was inadvertently incorporated during preparation of the specification.

The relocation of the power failure indicator lights from "FLIGHT INSTRUMENTS" to "ELECTRICAL POWER EQUIPMENT", places this item in its proper category.

The power failure detector unit is a non-existent item which is proposed for deletion for purpose of specification clarification.

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,026 DTD _____

CHANGE NO: 61

MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Various Changes to Electronic Items Language)

ORIGIN: Convair initiated based on Japan Air Lines letters dated 20 and 27 February 1961.

REASON FOR CHANGE: As above

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	0 INCH LB.
0	0	

EFFECT ON GUARANTEED PERFORMANCE: *

None

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:</p>	<p style="text-align: right;"><i>[Signature]</i> 3/14/61 <i>[Signature]</i> 3/14/61</p> <p style="text-align: right;">ENGINEERING APPROVAL <i>ND</i></p>
--	--

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS.	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Specification Administrative Change (Various Changes to Electronic Items Language)

Origin: Convair initiated, based on Japan Air Lines Letters dated 20 and 27 February 1961.

Reason for Change: As above

Description of Change:

Page 46, Paragraph 3.14.2.2 INTERCONNECTION OF EQUIPMENT:

Delete the sentence under above paragraph title, and add the following new paragraphs:

"3.14.2.2.1 COMPASS INTERCONNECTION: Pilot's RMDI (C-6B) shall function as part of the compass -1 system, and shall be controlled by a servo amplifier included in the horizon -1 system integrated instrument rack, and supply heading signals to the following systems and instruments:

Copilot's RMI (radio magnetic indicator)
Navigator's RMI
VOR-1 instrumentation unit
Pilot's PDI (Pictorial deviation indicator)
Pilot's PDI course selector
Navigation radar
Flight data recorder

The heading selector of pilot's RMDI (C-6B) shall supply selected heading signal to the automatic pilot. The directional gyro of compass -1 system shall supply heading reference signal to the automatic pilot. Copilot's RMDI (C-6B) shall function as part of the compass -2 system, and shall be controlled by a servo amplifier included in the horizon -2 system integrated instrument rack, and shall supply heading signal to the following systems and instruments:

Pilot's RMI
Navigator's RMI
VOR-2 instrumentation unit
Copilot's PDI

The heading selector of copilot's RMDI (C-6B) shall supply selected heading signal to the flight director system. The compass transfer switch shall be installed in navigator's panel to make selection of the heading signal to navigator's RMI from either compass system.

- 3.14.2.2.2 HORIZON INTERCONNECTION: Pilot's HZ-4 horizon flight director indicator shall function as part of the horizon -1 system, and shall be controlled by two servo amplifiers in the horizon -1 system integrated instrument rack. The vertical gyro of the horizon -1 system shall supply signal to the automatic pilot. Copilot's HZ-4 horizon flight director indicator shall function as part of the horizon -2 system, and shall be controlled by two servo amplifiers in the horizon -2 system integrated instrument rack. The vertical gyro of the horizon -2 system shall supply signal to the flight director system, and the weather radar system. The gyro trim knob of the pilot's and copilot's horizon flight director indicator shall position the attitude sphere of pilot's and copilot's horizon flight director indicator respectively.
- 3.14.2.2.3 FLIGHT DIRECTOR INTERCONNECTION: The remote heading selector knob of the flight reference selector shall position the heading selector of both RMDI (C-6B) with two servo amplifiers, one in each of the compass racks. Automatic crab angle, following in the approach mode, shall be provided by one servo amplifier in compass -1 system compass rack. One spare servo amplifier shall be included in compass -2 system compass rack. (See 3.17.3.4.4.)
- 3.14.2.2.4 PDI (R-1) INTERCONNECTION: Pilot's PDI (R-1) shall be controlled by one servo amplifier and one "to-from" sensor in the horizon -1 system integrated instrument rack. Copilot's PDI (R-1) shall be controlled by one servo amplifier and one "to-from" sensor in the horizon -2 system integrated instrument rack. (See 3.17.3.4.3.)

Page 66, Paragraph 3.16.10.8 MAINTENANCE RECEPTACLES:

Add the following sentence to the end of the paragraph:

"The type of receptacle shall be the same as Hubbell 7528."

Page 75, Paragraph 3.17.1.7.1 POWER CONTROLS:

In the third sentence, change the last nine words as follows:

From: "and the Doppler system tracker and computer, if installed."

To: "and the Doppler sensor and the Doppler navigation computer, if installed."

Page 78, Paragraph 3.17.2.4 AIRBORNE SELECTIVE CALLING:

Add the following to the end of the paragraph:

"The lights on the control panel shall be connected to the steady output of the Selcal systems. Aural calling shall be provided by means of a chime connected to the interrupted output of the Selcal systems. The pilot's call bell shall not be used for the Selcal systems."

Page 78, Paragraph 3.17.3.1.2 CONTROL:

Delete the last sentence "(The heading data shall be connected to the two RMDI (C-6B) indicators and the one RMI indicator at the navigator's station)" and substitute the following:

"The single and double pointers on pilot's and copilot's RMDI (C-6B) and navigator's RMI shall display information from the No. 1 and No. 2 ADF receivers respectively."

Page 79, Paragraph 3.17.3.4.1 CONTROLS:

Delete all description after the second sentence, and add the following new paragraphs, after Paragraph 3.17.3.4.2:

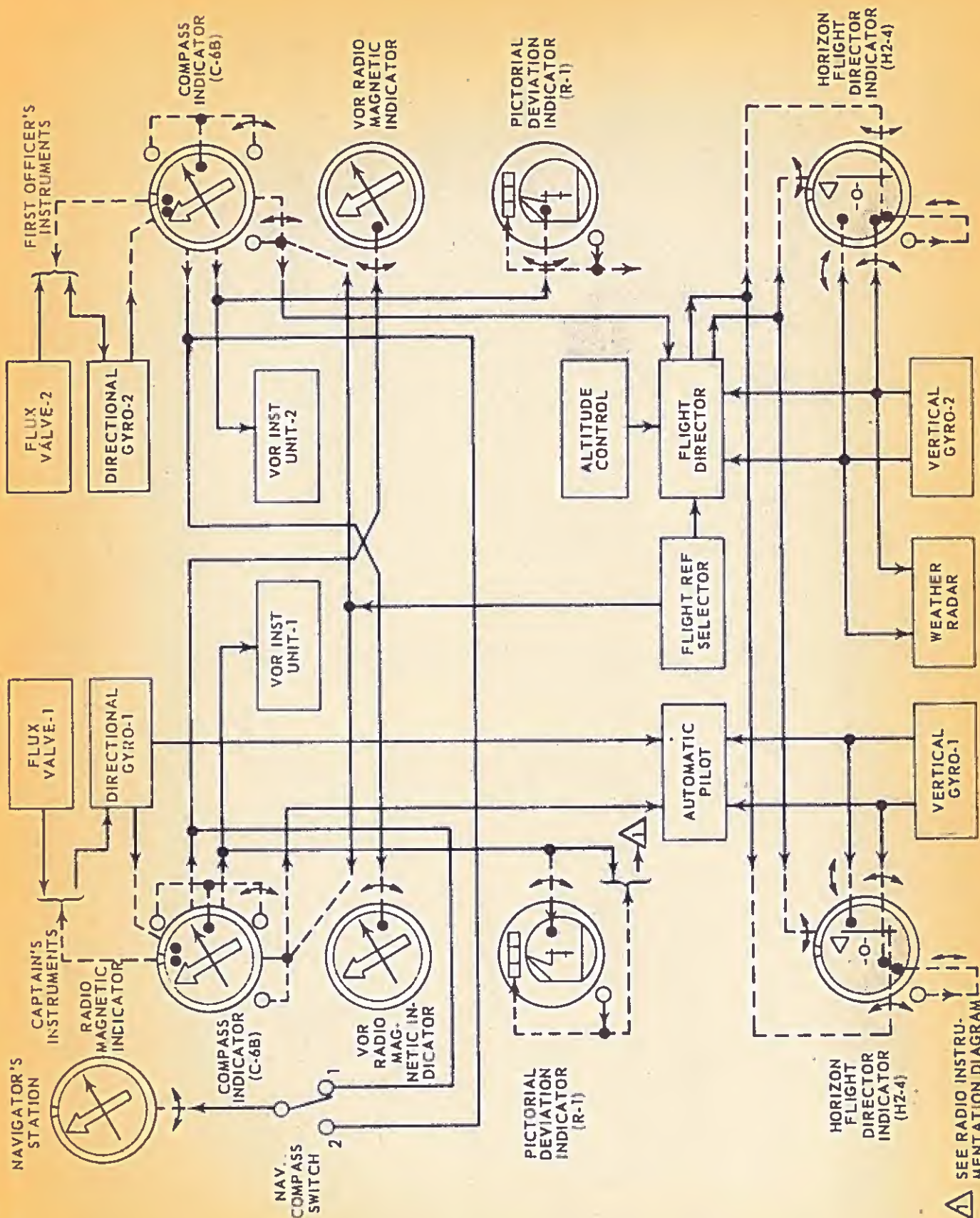
"3.17.3.4.3 INSTRUMENTATION: Pilot's PDI (R-1) shall display information from No. 1 VHF navigation system and No. 1 glide slope, whereas copilot's PDI shall display information from the No. 2 VHF navigation system and No. 2 glide slope. The course selector of pilot's PDI shall supply signal to the No. 1 VHF navigation system, whereas the course selector of copilot's PDI shall supply signal to the No. 2 VHF navigation system. The single and double pointers on pilot's and copilot's RMI shall display information from the No. 1 and No. 2 VHF navigation systems respective. The automatic pilot shall receive deviation and mode control signals from the No. 1 VHF navigation system and No. 1 glide slope, and shall receive VOR selected course signals from pilot's PDI.

3.17.3.4.4 VHF NAVIGATION SIGNAL FOR FLIGHT DIRECTOR: A flight director transfer switch with "VOR/ILS-1" and "VOR/ILS-2" positions shall be installed. Two flags, each with "VOR/ILS-1" and "VOR/ILS-2" positions shall be installed. (See Page 44a.) When the transfer switch

is in the "VOR/ILS-1" position, the flight director system shall be connected to the No. 1 VHF navigation system and No. 1 glide slope, and both flags shall indicate "VOR/ILS-1" position. When the transfer switch is in the "VOR/ILS-2" position, the flight director system shall be connected to the No. 2 VHF navigation system and No. 2 glide slope, and both flags shall indicate "VOR/ILS-2" positions."

- Enclosures: (A) One copy Page 46b - FLIGHT INSTRUMENTATION DIAGRAM
(To be incorporated into specification.)
- (B) One copy Page 46c - RADIO INSTRUMENTATION DIAGRAM
(To be incorporated into specification.)

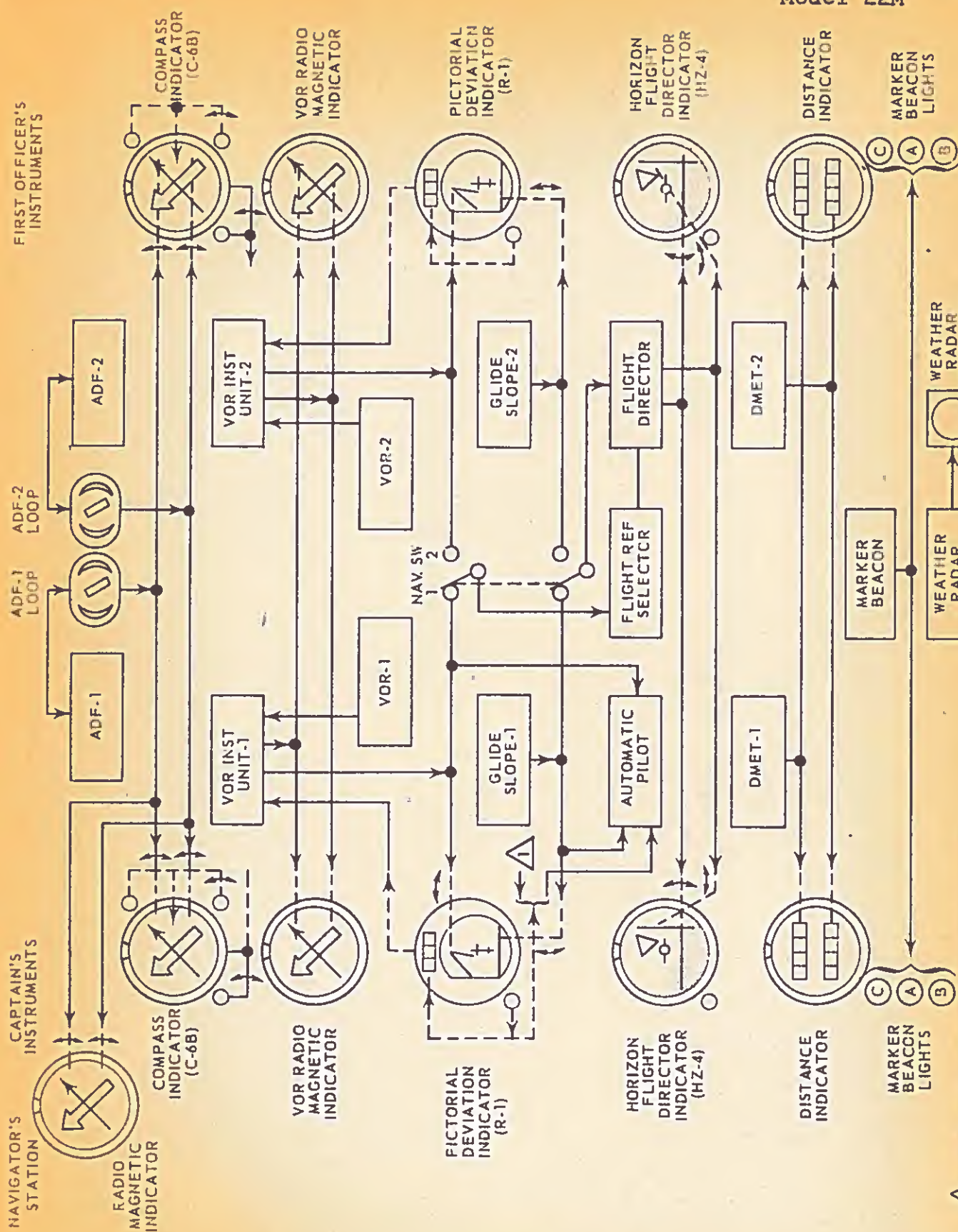
Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None



SEE RADIO INSTRUMENTATION DIAGRAM

FLIGHT INSTRUMENTATION DIAGRAM

JAPAN



SEE FLIGHT INSTRUMENTATION DIAGRAM.

804H

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,095 DTD ^{Revised} 8 November 1960

CHANGE NO: 55

MODEL: 22-22 (Convair "880")

TITLE: Customer Furnished Equipment, Installation of

ORIGIN: JAL Memo No. 13 (Mitsuoka to Duckworth) dated 31 October 1960.

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

-14.0

-6,075

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: * None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Signature] 7/6/1 *[Signature]* 2/6/4

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____
NON-RECURRING: _____
TOTAL: _____

ACCEPTED

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Customer Furnished Equipment, Installation of
Origin: JAL Memo No. 13 (Mitsuoka to Duckworth) dated 31 October 1960.
Reason for Change: Customer request
Description of Change:

Page 80, Paragraph 3.17.3.6 EMERGENCY RADIO TRANSMITTER:

Revise the sentence to read as follows:

"Stowage shall be provided in the forward right hand coat compartment for one Customer furnished AN/CRT-3 emergency radio transmitter."

Page 88, Paragraph 3.19.2.6.2 SIGNAL PISTOL:

From: "Provisions for the stowage of one Kilgore G-37-K signal pistol and six Kilgore 3-37 shells shall be made in the pilots' compartment."

To: "Stowage shall be provided in the pilots' compartment for one Kilgore G-37-K signal pistol and six Kilgore 3-37 shells."

Page 94, Paragraph 3.19.7.1 LIFE RAFTS:

Revise the first sentence to read as follows:

"The installation of five Customer furnished, 25-man life rafts shall be made in the following locations."

Page 94, Paragraph 3.19.7.2 EMERGENCY TRANSMITTER:

Revise the sentence to read as follows:

"Stowage shall be provided for an emergency transmitter as specified in 3.17.3.6."

Page A-1, APPENDIX I-A, CUSTOMER FURNISHED - CONVAIR INSTALLED:

Add the following items under "Description":

* 97	Life Vests			170.0
* 5	Life Rafts			755.0
* 1	Emergency Radio Transmitter	AN/CRT-3		40.0
* 1	Signal Pistol	Kilgore	G-37-K	{ 7.0 "
* 6	Shell, Signal Pistol	Kilgore	3-37	

Add the following to the bottom of Page A-1:

"*Useful Load Items"

Page A-2, APPENDIX I-B, CUSTOMER FURNISHED - CUSTOMER INSTALLED:

Delete the following items under "Description":

*105	Life Vests			184.0
* 5	Life Rafts			755.0
* 1	Emergency Radio			
	Transmitter		AN/CRT-3	40.0
* 1	Signal Pistol	Kilgore	G-37-K	{7.0
* 6	Shell, Signal Pistol	Kilgore	3-37	

Delete the following from the bottom of Page A-2:

"*Useful Load Items"

Effect on Weight Empty:	0
Effect on Operating Weight Empty:	-14.0 pounds
Effect on Balance:	-6,075 inch-pounds
Effect on Performance:	None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322 DATE: _____
 CUSTOMER: Japan Air Lines MCL 15,022 DTD _____
 CHANGE NO.: 54 MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Revision to Paragraph 3.17.1.7.1)

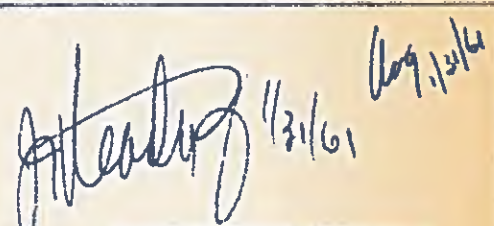
ORIGIN: Convair initiated

REASON FOR CHANGE: To clarify the intent of Paragraph 3.17.1.7.1.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:</p>	 ENGINEERING APPROVAL
--	--

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: _____ CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Specification Administrative Change (Revision to Paragraph 3.17.1.7.1)

Origin: Convair initiated

Reason for Change: To clarify the intent of Paragraph 3.17.1.7.1.

Description of Change:

Page 75, Paragraph 3.17.1.7.1 POWER CONTROLS:

Delete the paragraph and substitute the following:

"3.17.1.7.1 POWER CONTROLS: One "NORMAL" and one "ESSENTIAL" switch, located accessible to both pilots, shall control the ac and dc power to the radio equipment. The "NORMAL" switch shall control the weather radar, the marker beacon, selective call systems No. 1 and No. 2, glide slope No. 2, navigation instrument transformer No. 2, VHF navigation No. 2, radio compass No. 2, VHF communication receiver No. 2, VHF communication transmitter No. 2, HF communication No. 2, DMET No. 1 and No. 2 if installed, and ATC transponder No. 1 and No. 2, if installed. The "ESSENTIAL" switch shall control the Edo Loran system, VHF communication receiver No. 1, VHF communication transmitter No. 1, VHF navigation No. 1, glide slope No. 1, Radio compass No. 1, navigation instrument transformer No. 1, HF communication No. 1, and the Doppler system tracker and computer, if installed. The emergency dc bus, through suitable circuit breakers, shall power the audio selector panels, the public address amplifier, the interphone, the pilot compartment speaker, the flight data recorder, if installed, and the tape reproducer, if installed. All No. 1 normal radio equipment shall be supplied by a separate ac and dc line. All No. 2 normal radio equipment shall be supplied by a second separate ac and dc line. Protection shall be provided for each line. The power supply, feeder wires, circuit protection for equipment which back up each other functionally shall be separated in a manner that will preclude operation failure of both if any one circuit protective device feeder wire or power supply fails. Illumination shall be provided for the circuit breakers.

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,021 DTD _____

CHANGE NO: 53A

MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Misc. Revisions to Electronic Items Language)

ORIGIN: Japan Air Lines requested

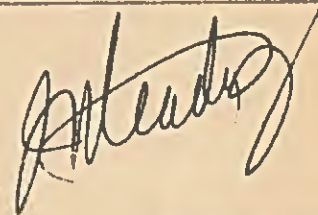
REASON FOR CHANGE: Revision to CCP No. 53.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:



Handwritten initials and date: 2/4/61

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Specification Administrative Change (Misc. Revisions to Electronic Items Language)

Origin: Japan Air Lines requested

Reason for Change: Revision to CCP No. 53.

Description of Change:

Page 71, Paragraph 3.17.1.1 CONTROL PANELS:

At top of page, add the following after "Weather Radar":

"(1)"

Change the below items under "Provisions for the following control panels" as follows:

From: "Doppler Computer
Doppler Navigation"

To: "Doppler Sensor
Doppler Navigation Computer"

Page 78, Paragraph 3.17.3.1.2 CONTROL:

Revise the second sentence as follows:

From: "The heading data shall be connected to the RMI indicators."

To: "The heading data shall be connected to the two RMDI (C-6B) indicators and the one RMI indicator at the navigator's station."

Page 79, Paragraph 3.17.3.4.1 CONTROLS:

Revise the fourth and fifth sentences as follows:

From: "The single and double pointers on the RMDI shall display information from the No. 1 and No. 2 Navigation Receivers respectively. The single and double pointers on the RMI shall display information from the No. 1 and No. 2 ADF receivers respectively."

To: "The single and double pointers on the RMI (VOR) on the pilot's and copilot's panels shall display information from the No. 1 and No. 2 Navigation Receivers respectively. The single and double pointers on the RMDI (C6B) on the

CONVAIR: SD

Japan Air Lines
Change No. 53A

Page 2 of 2

pilot's and copilot's panels and RMI at navigator's station, shall display information from the No. 1 and No. 2 ADF receivers respectively."

Page 80a, ANTENNA ARRANGEMENT:

Above illustration will be revised to delete the word "provisions" from "HF ANTENNA COUPLER NO. 2" callout.

Effect on Weight Empty:	0
Effect on Balance:	0
Effect on Performance:	None

CONVAIR: SD

Japan Air Lines
Change No. 52

Title: Specification Administrative Change (Revision to Auxiliary Landing Gear, Tail Skid)

Origin: Convair initiated

Reason for Change: Product improvement.

Description of Change:

Page 24, Paragraph 3.8.3 AUXILIARY LANDING GEAR (TAIL SKID):

Change the first line in the paragraph to read as follows:

From: "A retractable skid or "

To: "A skid or "

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: 0

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,100 DTD 14 December 19

CHANGE NO: 51

MODEL: 22-22 (Convair "880")

TITLE: JAL Buffet Inserts, Change from Customer to Convair Installed

ORIGIN: JAL Memo No. 23 (Mitsuoka to Duckworth) dated 22 November 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

0

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND
TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

 11/2/61

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 51

Title: JAL Buffet Inserts, Change from Customer to Convair Installed
Origin: JAL Memo No. 23 (Mitsuoka to Duckworth) dated 22 November 1960
Reason for Change: Customer request
Description of Change:

Page A-1, APPENDIX I-A, CUSTOMER FURNISHED - CONVAIR INSTALLED:

Add the following item under "Description"

"*AR Inserts, Buffet"

Add the following to the bottom of Page A-1:

"*Useful Load Item"

Page A-2, APPENDIX I-B, CUSTOMER FURNISHED - CUSTOMER INSTALLED:

Delete the below item under "Description"

"*AR Inserts, Buffet"

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

The following shall not appear in the specification language.

It is to be understood that Convair in no way will be responsible for inspection, quality, warranty or certification and loss, design deficiencies or fitting of the Customer furnished buffet inserts connected with this proposal.

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,097 DTD 5 December 1960

CHANGE NO: 50

MODEL: 22-22 (Convair "880")

TITLE: **Portable Oxygen Bottles, Increase from 6 to 7**

ORIGIN: **JAL Memo No. 26 (Mitsuoka to Duckworth) dated 5 December 1960**

REASON FOR CHANGE: **Customer request**

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY
Negligible

OPER. WT. EMPTY
+7.0 lbs.

+2,954

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Signature] 11/18/61

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Portable Oxygen Bottles, Increase from 6 to 7.

Origin: JAL Memo No. 26 (Mitsuoka to Duckworth) dated 5 December 1960.

Reason for Change: Customer request

Description of Change:

Page 94, Paragraph 3.19.5.6 - PORTABLE BOTTLES:

Revise the second sentence as follows:

From: "Six, seven-cubic foot portable oxygen bottles shall be provided, three located in the aft L.H. coat closet, two in the forward R.H. coat closet and one in the forward L.H. coat closet".

To: "Seven, seven-cubic foot portable oxygen bottles shall be provided; three located in the aft L.H. coat closet, three in the forward R.H. coat closet and one in the forward L.H. coat closet".

Page A-15, APPENDIX I-C, OXYGEN SYSTEM:

Revise the below items as follows:

<u>From:</u>	"6 *Bottle, Portable Oxygen (7 cu ft)	Scott	5500-B1A-BF20B	} 86.0"
	6 Mask, Oxygen (A8B)	Scott	23275	
<u>To:</u>	"7 *Bottle, Portable Oxygen (7 cu ft)	Scott	5500-B1A-BF20B	} 93.0"
	7 Mask, Oxygen (A8B)	Scott	23275	

Effect on Weight Empty: Negligible

Effect on Operating Weight Empty: +7.0 lbs.

Effect on Balance: +2,954 in. lbs.

Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,096 DTD 5 December 1960

CHANGE NO: 49

MODEL: 22-22 (Convair "880")

TITLE Passenger Seating Configuration, Modification of

ORIGIN: JAL Memo No. 26 (MITSUOKA to DUCKWORTH) dated 5 December 1960

REASON FOR CHANGE Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+40.0 lb	+26.0 lb	-34,151 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Signature] 1/9/61

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: _____ CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,020 DTD _____

CHANGE NO: 52

MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Revision to Auxiliary Landing Gear Tail Skid)

ORIGIN: Convair initiated

REASON FOR CHANGE: Product improvement

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

0

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Signature] 1/20/61

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Passenger Seating Configuration, Modification of
Origin: JAL Memo No. 26 (MITSUOKA to DUCKWORTH) dated 5 December 1960
Reason for Change: Customer request
Description of Change:

Page 1, Paragraph 1.1 BASIC TYPE:

Revise the third sentence as follows:

From: "The body of this specification describes an interior for a mixed seating arrangement which provides for the accommodation of 28 first class seats and 59 coach seats."

To: "This specification describes an interior seating arrangement which provides for the accommodation of 16 first class passengers and 74 coach passengers."

Page 3b, INTERIOR ARRANGEMENT:

Above illustration will be revised to show existing coat dividers immediately aft of fourth row of first class seats, and to show life rafts, stowed on floor, at a position forward of revised coat divider location. The revised illustration will also show three additional double coach seats and three additional triple coach seats in lieu of three rows of first class seats.

Page 6, Paragraph 3.1.2.2 TYPICAL LOADING SUMMARY:

Revise the below item under "Fixed Useful Load" as follows"

From: "Life Vests (105) 184 lb"

To: "Life Vests (97) 170 lb"

Revise the "Space Limit Payloads" as follows:

<u>From:</u>	<u>Standard</u>
"Space Limit Payloads:	
Passengers @ 165 lb	
(87 Standard) (104 Alternate Coach)*	14,355
Baggage @ 40 lb/passenger	3,480
Cargo	5,010
Total	22,845"

<u>To:</u>	"Space Limits Payloads:	<u>Standard</u>
	Passengers @ 165 lb	
	(90 Standard) (104 Alternate Coach)*	14,850
	Baggage @ 40 lb/passenger	3,600
	Cargo	4,890
	Total	23,340"

Page 82, Paragraph 3.19.1 GENERAL:

In the second line, change "87" to "90".

Page 89, Paragraph 3.19.3.1.1 PASSENGER COMPARTMENT:

Revise the first sentence as follows:

From: "The main passenger compartment aisle shall be a minimum of 24 inches wide between arm rests in the standard configuration."

To: "The main passenger compartment aisle width between arm rests shall be approximately 24 inches in the first class section and approximately 19 inches in the coach section."

Page A-2, APPENDIX I-B, CUSTOMER FURNISHED - CUSTOMER INSTALLED:

Revise the below item under "Description" as follows:

From: "105 Life Vest 184.0"

To: "97 Life Vest 170.0"

Page A-15, APPENDIX I-C, FURNISHINGS:

Revise the below items under "Description" as follows:

From: " 7 Seats, Double, First Class, L-H
7 Seats, Double, First Class, R-H
12 Seats, Double, Coach, R-H
11 Seats, Triple, Coach, L-H
78 Tray, Integral Folding Food
87 Belt, Passenger Safety"

CONVAIR: SD

Japan Air Lines
Change No. 49

Page 3 of 3

To: " 4 Seats, Double, First Class, L-H
 4 Seats, Double, First Class, R-H
 15 Seats, Double, Coach, R-H
 14 Seats, Triple, Coach, L-H
 81 Tray, Integral Folding Food
 90 Belt, Passenger Safety"

Effect on Operating Weight Empty:	+26.0 pounds
Effect on Weight Empty:	+40.0 pounds
Effect on Balance:	-34,151 inch-pounds
Effect on Performance:	None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,019 DTD _____

CHANGE NO: 48

MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Revision to Engine Specification)

ORIGIN: Convair initiated

REASON FOR CHANGE: , To specify the G.E. Engine Specification under which engines will be supplied.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	0 INCH LB.
0	0	

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Signature] 12/13/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Specification Administrative Change (Revision to Engine Specification)

Origin: Convair initiated

Reason for Change: To specify the G.E. Engine Specification under which engines will be supplied.

Description of Change:

Page 2, Paragraph 2.2 - ENGINE SPECIFICATION:

Revise the paragraph as follows:

From: "General Electric Engine Specification E-723h dated 1 September 1959 shall apply".

To: "General Electric Engine Specification E-790 dated 11 July 1960 with Reverser Specification E-725e dated 11 July 1960 and Suppressor Specification E-731f dated 11 July 1960 shall apply".

Page 4, Paragraph 3.1.1.1 - PERFORMANCE:

In the ninth line, change "E-723h, dated 1 September 1959" to "E-790, dated 11 July 1960".

Page A-3, APPENDIX I-C, PROPULSION EQUIPMENT:

Revise the following item under "POWER PLANT EQUIPMENT" as follows:

From: "4 Engine, complete *(Dry) Gen. Electric CJ-805-3B"

To: "4 Engine, complete *(Dry) Gen. Electric CJ-805-3B
Spec. No. E-790
Dated 7-11-60".

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,018 DTD _____

CHANGE NO: 47

MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Revision to Lighting Controls Language)

ORIGIN: Convair initiated, based on Item 4 of JAL Memorandum No. 26 (Mitsuoka to Duckworth) dated 5 December 1960

REASON FOR CHANGE: To more clearly define passenger compartment forward and aft lighting control.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Ready 12/6/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

GENERAL DYNAMICS

Title: Specification Administrative Change (Revision to Lighting Controls Language)

Origin: Convair initiated, based on Item 4 of JAL Memorandum No. 26 (Mitsuoka to Duckworth) dated 5 December 1960.

Reason for Change: To more clearly define passenger compartment forward and aft lighting control.

Description of Change:

Page 63, Paragraph 3.16.8.3.3 - LIGHTING CONTROLS:

Add the following sentence to the end of the paragraph:

"The first class section lights shall be controlled from the forward cabin attendant's station, and the coach class section lights shall be controlled from the aft cabin attendant's station with the movable coat compartment dividers (Reference 3.19.3.1.2) located within the limitation of Stations 659 and 983 as defined in 3.20.1.9".

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15017 DTD _____

CHANGE NO: 46

MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Change to Locations of Cargo Tie-Down Fittings)

ORIGIN: Convair initiated

REASON FOR CHANGE: To more accurately define locations of cargo compartment tie-down fittings.

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

0

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

12/1/60
A. C. Rogers

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Specification Administrative Change (Change to Locations of Cargo Tie-Down Fittings)

Origin: Convair initiated

Reason for Change: To more accurately define locations of cargo compartment tie-down fittings.

Description of Change:

Page 87, Paragraph 3.19.2.4 LUGGAGE AND CARGO COMPARTMENTS:

Delete all reference, in lower half of paragraph, to cargo tie-down fitting locations and substitute the following:

"FORWARD COMPARTMENT

<u>B.L.</u>	<u>Station</u>
32.32 L	388.50
16.50 L	388.50
10.50 L	388.50
32.38 L	388.50
32.38 L	425.44
16.50 L	425.44
10.50 R	425.44
32.38 R	425.44
32.38 L	463.50
16.50 L	463.50
10.50 R	463.50
30.92 L	514.47
16.50 L	514.47
10.50 R	514.47
32.38 L	551.75
16.50 L	551.75
10.50 R	559.00
33.71 R	559.00
32.38 L	589.58
16.50 L	589.58
10.50 R	589.58
32.38 R	589.58


AFT COMPARTMENT

<u>B.L.</u>	<u>Station</u>
27.22 L	1026.00
16.50 L	1026.50
16.50 R	1026.50
27.22 R	1026.00
27.22 L	1054.00
16.50 L	1054.10
16.50 R	1054.10
27.22 R	1054.00
27.24 L	1092.00
16.50 L	1087.35
16.50 R	1092.10
25.65 R	1087.00
27.14 L	1140.00
16.50 L	1139.50
16.50 R	1144.90
25.80 R	1145.00
26.82 L	1178.00
16.50 L	1178.60
16.50 R	1178.60
26.82 R	1178.00
26.82 L	1206.00
16.50 L	1206.25
16.50 R	1206.25
26.82 R	1206.00"

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

SPEC NO.: ZD- 22-322 DATE: _____
CUSTOMER: Japan Air Lines MCL 15,016 DTD _____
CHANGE NO: 45A MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Revision to Instrument System Items)			
ORIGIN: Convair initiated			
REASON FOR CHANGE: To provide current part numbers and description for subject items, and revision to CCP No. 45.			
EFFECT ON WEIGHT *		EFFECT ON BALANCE *	
GUAR. WT. EMPTY	OPER. WT. EMPTY		
0	0	0 INCH LB.	
EFFECT ON GUARANTEED PERFORMANCE: *			
None			
* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL		 ENGINEERING APPROVAL	
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:			
LATEST DATE OF ACCEPTANCE:		AIRPLANES AFFECTED:	
SPECIAL PROVISIONS:		EFFECT ON PRICE PER AIRPLANE:	
		RECURRING: _____	
		NON-RECURRING: _____	
		TOTAL: _____	

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 45A

Title: Specification Administrative Change (Revision to Instrument System Items)

Origin: Convair initiated

Reason for Change: To provide current part numbers and description for subject items, and revision to CCP No. 45.

Description of Change:

Page A-4, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Revise the below item under "SPERRY FLIGHT NAVIGATION SYSTEM" as follows:

From: "1 Vertical Gyro Sperry 617926-1"

To: "1 Vertical Gyro Sperry 2585297"

Delete the below item under "SPERRY C-11 REMOTE COMPASS SYSTEM":

"8 Amplifier, Servo Sperry 614937-51"

Page A-6, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Revise the below items under "AUTO PILOT TYPE SP-30" as follows:

From: "1 Indicator, Auto Pilot Trim Sperry 1776004-1
1 Gyro Vertical Sperry 617926-1
1 Trim Servo Motor and Drive Sperry 1778879-41"

To: "1 Indicator, Auto Pilot Trim Sperry 1776004-5
1 Vertical Gyro Sperry 2585297
1 Trim Servo Motor and Drive Sperry 1778879-21"

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322 DATE: _____
CUSTOMER: Japan Air Lines MCL 15,015 DTD _____
CHANGE NO: 44 MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Indicate Marker Beacon Control on ATC Panel)

ORIGIN: Convair initiated

REASON FOR CHANGE: To indicate marker beacon control on ATC panel in lieu of on pilots' instrument panel.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY 0	OPER. WT. EMPTY 0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Signature] 11/21/60
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____
NON-RECURRING: _____
TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Specification Administrative Change (Indicate Marker Beacon Control on ATC Panel)

Origin: Convair initiated

Reason for Change: To indicate marker beacon control on ATC panel in lieu of on pilots' instrument panel.

Description of Change:

Page 79, Paragraph 3.17.3.2 - MARKER BEACON RECEIVER:

Revise the last sentence as follows:

From: "Controls for the marker beacon shall be located on the pilots' instrument panel".

To: "Controls for the marker beacon shall be located on the ATC control panel".

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,014 DTD _____

CHANGE NO: 43

MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Addition of Static Inverter to Paragraph 3.16.2.4.1)

ORIGIN: Convair initiated

REASON FOR CHANGE: To specify that static inverter is being furnished.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

John A. [Signature] 11/21/50

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 43

Title: Specification Administrative Change (Addition of Static Inverter to Paragraph 3.16.2.4.1)

Origin: Convair initiated.

Reason for Change: To specify that static inverter is being furnished.

Description of Change:

Page 53, Paragraph 3.16.2.4.1 - POWER TRANSFER:

Add the following to the end of paragraph:

"A static inverter, connected to the battery, shall be provided for engine ground start when external a-c electrical power is not available".

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,013 DTD _____

CHANGE NO: 42

MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Clarification of Cabin Ceiling Height)

ORIGIN: Convair initiated

REASON FOR CHANGE: To clarify cabin height in the area of the dropped ceiling.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Signature] 11/10/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

CONVAIR: SD

Japan Air Lines
Change No. 42

Title: Specification Administrative Change (Clarification of Cabin Ceiling Height.

Origin: Convair initiated.

Reason for Change: To clarify cabin height in the area of the dropped ceiling.

Description of Change:

Page 85, Paragraph 3.19.3.1.1 - PASSENGER COMPARTMENT:

Revise the last sentence to read as follows:

"The clear ceiling height in the main cabin shall be approximately 85 inches at the airplane centerline except in the area of the dropped ceiling which shall be approximately 78 inches".

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,012 DTD _____

CHANGE NO: 41

MODEL: 22-22 (Convair '880")

TITLE: Specification Administrative Change (Revision to Paragraph 3.16.8.3.4 and to ADF Control Panel P/N)

ORIGIN: Convair initiated

REASON FOR CHANGE: To clarify the intent of the specification

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

0

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Signature] 10/25/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

Title: Specification Administrative Change (Revision to Paragraph 3.16.8.3.4 and to ADF Control Panel P/N)

Origin: Convair initiated

Reason for Change: To clarify the intent of the specification.

Description of Change:

Page 63, Paragraph 3.16.8.3.4 - READING LIGHTS:

Delete the last seven words in the fourth sentence, which reads as follows, and repunctuate sentence:

"and placarded to clearly indicate its function".

Page A-10, APPENDIX I-C, ELECTRONIC EQUIPMENT:

Revise the below item under "Control Panels" as follows:

<u>From:</u>	"2 Radio Compass (ADF)	Collins	614L-5"
<u>To:</u>	"2 Radio Compass (ADF)	Collins	614L-6"

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

C O N V A I R

AN AIRCRAFT DESIGN, DEVELOPMENT, PRODUCTION, MAINTENANCE, AND REPAIR COMPANY
DATA FOR AIRCRAFT DESIGN

COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD- 22-322

DATE: _____

CUSTOMER Japan Air Lines

MCL 15,093 DTD 5 October 1960

CHANGE NO. 40

MODEL 22-22 (Convair "88C")


TITLE Airtron 66430 Bidirectional Coupler, Installation of

ORIGIN JAL Memo No. 11 (Mitsuoka to Duckworth), dated 5 October 1960

REASON FOR CHANGE. Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GAIR, WT. EMPTY	OPER. WT. EMPTY	
Negligible	Negligible	Negligible INCH LB.

EFFECT ON GUARANTEED PERFORMANCE *
None

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES</p>	<div style="text-align: center;">  17/10/60 ENGINEERING APPROVAL </div>
---	--

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED

SPECIAL PROVISIONS	EFFECT ON PRICE PER AIRPLANE
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: _____ CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY _____

DATE _____

CONVAIR: SD

Japan Air Lines
Change No. 40

Title: Airtron 66430 Bidirectional Coupler, Installation of
Origin: JAL Memo No. 11 (Mitsuoka to Duckworth), dated 5 October
1960

Reason for Change: Customer request

Description of Change:

Page 80, Paragraph 3.17.4.1 WEATHER PENETRATION AIRBORNE RADAR:

Revise the last sentence as follows:

From: "Provisions shall be made in the waveguide installation for use of an Airtron 66430 Reflectometer."

To: "An Airtron 66430 bidirectional coupler shall be provided in the waveguide installation."

Page A-10, APPENDIX I-C, ELECTRONIC EQUIPMENT:

Add the following item under "WEATHER RADAR":

"Coupler, Bidirectional Airtron 66430"

Effect on Weight Empty: Negligible
Effect on Balance: Negligible
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,092 DTD 26 September 1960

CHANGE NO: 39

MODEL: 22-22 (Convair "880")

TITLE: Seat Paper Dispenser, Installation of

ORIGIN: Meeting, H. HARASAWA of JAL and H. B. DUCKWORTH of Convair, on 23 September 1960; and Memo from H. HARASAWA dated 23 September 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

Negligible

Negligible

Negligible

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Signature] 17/10/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 39

Title: Seat Paper Dispenser, Installation of

Origin: Meeting, H. HARASAWA of JAL and H. B. DUCKWORTH of Convair
on 23 September 1960; and Memo from H. HARASAWA dated 23
September 1960

Reason for Change: Customer request

Description of Change:

Page 86, Paragraph 3.19.2.2.3 MISCELLANEOUS LAVATORY EQUIPMENT:

Add the following item to the equipment list:

"One toilet seat paper dispenser"

Delete the below item from the equipment list:

"One toilet paper dispenser (interlock leaf)"

Page A-15, APPENDIX I-C, FURNISHINGS:

Add the following item under "Description":

"4 Dispensers, Toilet Seat Consol. Cover Co. PROCO"
Paper

Effect on Weight Empty: Negligible
Effect on Balance: Negligible
Effect on Performance: None

The following shall not appear in the specification language:

The language effect of CCP No. 5, approved by Customer, is
included in this proposal as concerns the toilet paper dis-
penser being deleted.

CONVAIR

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO. 7D 22-322

DATE _____

CUSTOMER Japan Air Lines

MCL 15,011 DTD _____

CHANGE NO. 37

MODEL 22-22 (Convair "880")

TITLE Specification Administrative Change (Revision to Flare Dispenser Language and Filter P/N Change)

ORIGIN Convair initiated

REASON FOR CHANGE To clarify the intent of the specification

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
QUICK WT. EMPTY	OPER. WT. EMPTY	0 INCH LB.
0	0	

EFFECT ON GUARANTEED PERFORMANCE: *

None

ALL ELIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

A. Longman
10/25/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED BY _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

DATE _____

Title: Specification Administrative Change (Revision to Flare Dispenser Language and Filter P/N Change)

Origin: Convair initiated

Reason for Change: To clarify the intent of the specification

Description of Change:

Page 88, Paragraph 3.19.2.6.1 - FLARE DISPENSERS (PROVISIONS):

Delete "(PROVISIONS)" from paragraph title.

Page A-9, APPENDIX I-C, ELECTRONIC EQUIPMENT:

Revise the below item under "RADIO COMPASS (ADF) SYSTEM" as follows:

<u>From:</u>	"2 Filters	Collins	635-1"
<u>To:</u>	"2 Filters	Collins	635F-1"

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

The following shall not appear in the specification language:

CCP No. 26 (Revision to Appendix I-C Part Numbers) inadvertently changed the ADF Filter part number from "635F-1" to "635-1". Approval of this proposal will restore the part number to original number which is correct.

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

MODEL: 22-22 (Convair "600")

DATE _____

August 9/23/60

ENGINEERING APPROVAL

CONVAIR: SD

Japan Air Lines
Change No. 36

Title: True Airspeed Indicator, Slave, Additional, Installation of

Origin: JAL/Convair Meeting 10 May 1960

Reason for Change: Customer request

Description of Change:

Page 46, Paragraph 3.14.1.6 NAVIGATOR'S INSTRUMENTS:

Add the following item to the instrument list:

"One true airspeed indicator (slave)"

Page A-5, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Add the following item under "KOLLSMAN INTEGRATED FLIGHT INSTRUMENT SYSTEM":

"1 Indicator, True Airspeed,
Slave (Nav. Sta.)

Kollsman

A32355-10-001"

Effect on Weight Empty: +3.0 Pounds
Effect on Balance: +810 Inch-Pounds
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,010 DTD _____

CHANGE NO.: 35

MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Revision to Paragraph 3.12.9.13.2)

ORIGIN: Convair initiated

REASON FOR CHANGE: To clarify the intent of the specification.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

A. Argueman
9/20/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 35

Title: Specification Administrative Change (Revision to Paragraph 3.12.9.13.2)

Origin: Convair initiated

Reason for Change: To clarify the intent of the specification.

Description of Change:

Page 41, Paragraph 3.12.9.13.2 EMERGENCY REFUELING:

In the third line, change the word "outboard" to "integral".

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,088 DTD 15 September 1960

CHANGE NO.: 34

MODEL: 22-22 (Convair "880")

TITLE: VHF Navigation Instrument Units, Change to

ORIGIN: JAL Memorandum No. 5 (S. MITSUOKA to H. B. DUCKWORTH) dated 15 September 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
Negligible	Negligible	Negligible INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Signature] 12/4/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 34

Title: VHF Navigation Instrument Units, Change to

Origin: JAL Memorandum No. 5 (S. MITSUOKA to H. B. DUCKWORTH)
dated 15 September 1960

Reason for Change: Customer request

Description of Change:

Page A-9, APPENDIX I-C, ELECTRONIC EQUIPMENT:

Revise the below item under "VHF NAVIGATION SYSTEM" as follows:

<u>From:</u>	"2 Instrument Units	Collins	344B-1"
<u>To:</u>	"2 Instrument Units	Collins	344B-1A"

Effect on Weight Empty:	Negligible
Effect on Balance:	Negligible
Effect on Performance:	None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD- 22-322

DATE: _____

CUSTOMER. Japan Air Lines

MCL 15,087 DTD 15 September 1960

CHANGE NO. 33

MODEL: 22-22 (Convair "880")

TITLE Amplifier, Speaker; Change to

ORIGIN JAL Memorandum No. 5 (S. MITSUOKA to H. B. DUCKWORTH) dated 15 September 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

Negligible

Negligible

Negligible INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

 12/14/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 33

Title: Amplifier, Speaker; Change to

Origin: JAL Memorandum No. 5 (S. MITSUOKA to H. B. DUCKWORTH)
dated 15 September 1960.

Reason for Change: Customer request

Description of Change:

Page A-9, APPENDIX I-C, ELECTRONIC EQUIPMENT:

Revise the below item under "P.A. SYSTEM" as follows:

<u>From:</u>	"1 Amplifier (1/4 ATR)	Collins	346D-1"
<u>To:</u>	"1 Amplifier (1/4 ATR)	Collins	346F-1"

Effect on Weight Empty:	Negligible
Effect on Balance:	Negligible
Effect on Performance:	None

The following shall not appear in the specification language:

The 356F-1 amplifier will be bench set to a three-watt nominal output.

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,086 DTD 15 September 1960

CHANGE NO.: 32A

MODEL: 22-22 (Convair "880")


TITLE: Fuel Flow Totalizers, G. E., Installation of

ORIGIN: JAL representative request on 15 September 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+48.0 lb	+48.0 lb	+25,345 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	 12/21/60 ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: _____ CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Fuel Flow Totalizer, G. E., Installation of
Origin: JAL representative request on 15 September 1960
Reason for Change: Customer request
Description of Change:

Page 44a, PILOT'S AND COPILOT'S INSTRUMENT PANELS:

Above illustration will be revised to change "FUEL FLOW" indicator callout to "FUEL FLOW/FUEL CONSUMED" and to add "FUEL RESET" switch.

Page 45, Paragraph 3.14.1.3 CENTER PANEL INSTRUMENTS:

Revise the below item in the instrument list as follows:

From: "*Four fuel flow indicators"

To: "*Four indicators, fuel flow/fuel consumed"

Page A-5, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Revise the below item under "ENGINE INSTRUMENTS - FUEL SYSTEM" as follows:

<u>From:</u>	"4 Indicator, Fuel Flow	Gen. Elec.	8DJ97LAA-1"
<u>To:</u>	"4 Indicator, Fuel Flow/ Fuel Consumed	Gen. Elec.	8DJ77LAC-2"

Add the following items under the above item:

"4	Amplifier	Gen. Elec.	8KE25GAC-1
4	Transmitter, Fuel Flow	Gen. Elec.	8TJ59GAR3"
1	Static Inverter	Electro Devel.	2-107E"

Effect on Weight Empty: +48.0 pounds
Effect on Balance: +25,345 inch-pounds
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,009 DTD _____

CHANGE NO: 31

MODEL: 22-22 (Convair "880")

TITLE: **Specification Administrative Change (Miscellaneous Revisions to Specification Language and Pilots' Instrument Panel Illustration)**

ORIGIN: **Convair initiated**

REASON FOR CHANGE: **To clarify the intent of the specification**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	0 INCH LB.
0	0	

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

CCP No. 18

A. Argueman
9/19/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Specification Administrative Change (Miscellaneous Revisions to Specification Language and Pilots' Instrument Panel Illustration)

Origin: Convair initiated

Reason for Change: To clarify the intent of the specification

Description of Change:

Page 11, TABLE OF CONTENTS:

Adjacent to 3.12.3, correct spelling of "Propulsion"

Page 25, Paragraph 3.8.4.7 - STEERING CONTROL:

In fifth line from bottom of paragraph, change "hear" to "gear".

Page 32, Paragraph 3.12.4.2.1 - CONSTANT SPEED DRIVE OIL SYSTEM:

In second line of first sentence, correct spelling of "engines".

Page 44, Paragraph 3.14.1 - INSTRUMENTS:

Delete the last six words in the first sentence "(without artificial light during daylight hours)", and repunctuate sentence.

Page 44a, PILOT'S AND COPILOT'S INSTRUMENT PANELS:

Replace above illustration in the specification with Enclosure (A) which ~~relocated~~ "VNE MNE WARNING TEST" and adds "RUDDER BOOST Q TEST & OVERRIDE" to pilot's panel.

Page 57, Paragraph 3.16.7.1.2 - FUSES:

Delete third sentence which is repetitious with second sentence.

Page 88, Paragraph 3.19.2.7.1 - ASH TRAYS:

Add the following to the ash tray list:

"One radio operator/navigator".

Page 88, Paragraph 3.19.2.7.7 - COAT STOWAGE:

Add the following after paragraph title, and delete the sentence:

"(Deleted)"

Page A-3, APPENDIX I-C:

In note on bottom of page correct spelling of "Including" and "reverse".

Page A-4, APPENDIX I-C:

Under "SPERRY C-11 REMOTE COMPASS SYSTEM", change "Flus" to "Flux"

Page A-18, APPENDIX I-D:

Under "Interior Trim*," change "Wanscot" to "Wainscot"

Enclosure: (A) One copy Page 44a - PILOT'S AND COPILOT'S INSTRUMENT
PANELS (Revised)

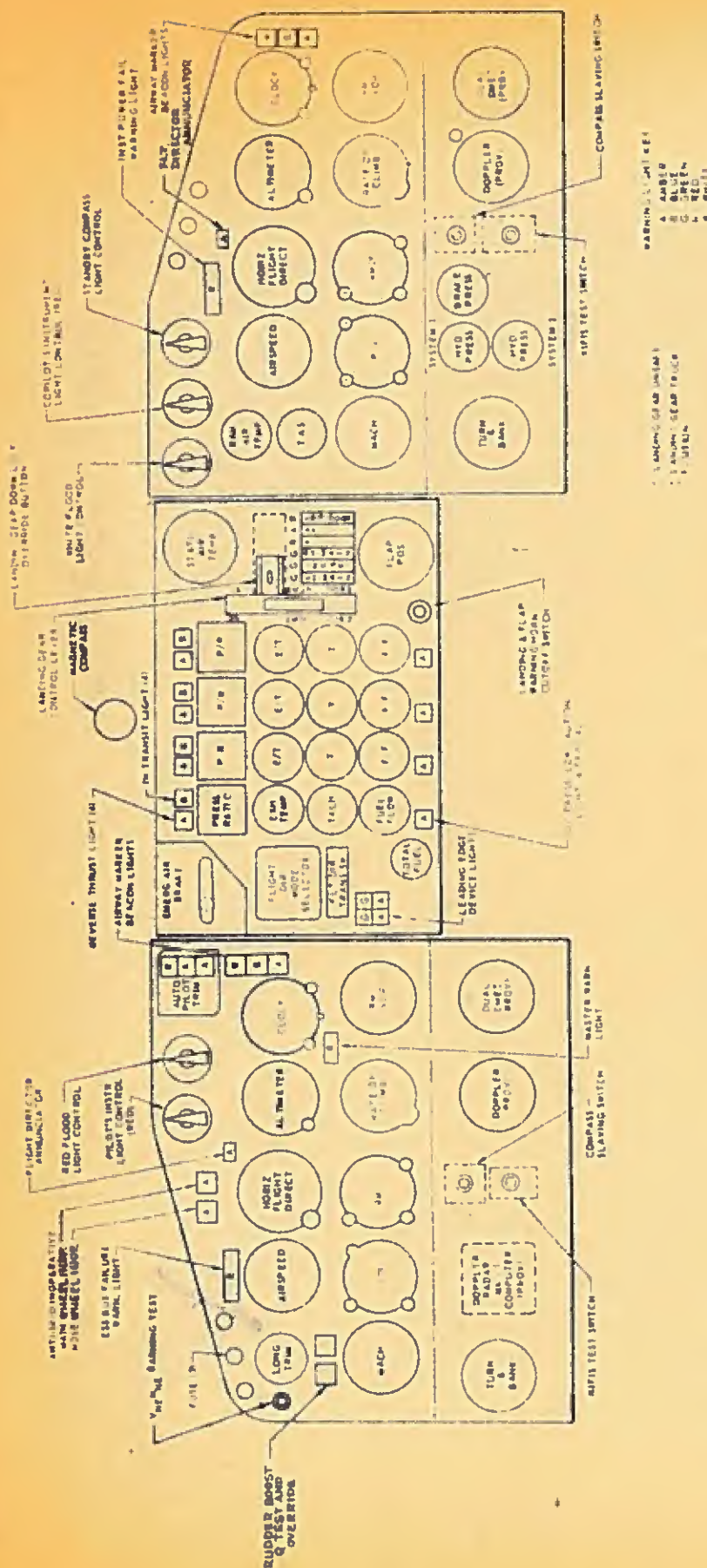
Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

The following shall not appear in the specification language:

Enclosure (A) of this proposal includes the effects of CCP No. 7 (Flight Reference Selector Switch), approved by Customer; and the effects of CCP No. 18 (Revision to Pilots' Instrument Panel and Pedestal Illustrations). Therefore acceptance of this CCP is contingent on prior acceptance of CCP No. 18

CONVAIR: SD

Page 44a
Report No. ZD-22-322
Model 22M



PILOT'S AND COPILOT'S INSTRUMENT PANELS

6-11-0

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,008 DTD _____

CHANGE NO.: 30

MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Revised C. G. Limits Graph)

ORIGIN: Convair initiated

REASON FOR CHANGE: To furnish an up to date C. G. Limits Graph.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

A. C. C. C.
9/15/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 30

Title: Specification Administrative Change (Revised C. G. Limits Graph)

Origin: Convair initiated

Reason for Change: To furnish an up to date C. G. Limits Graph.

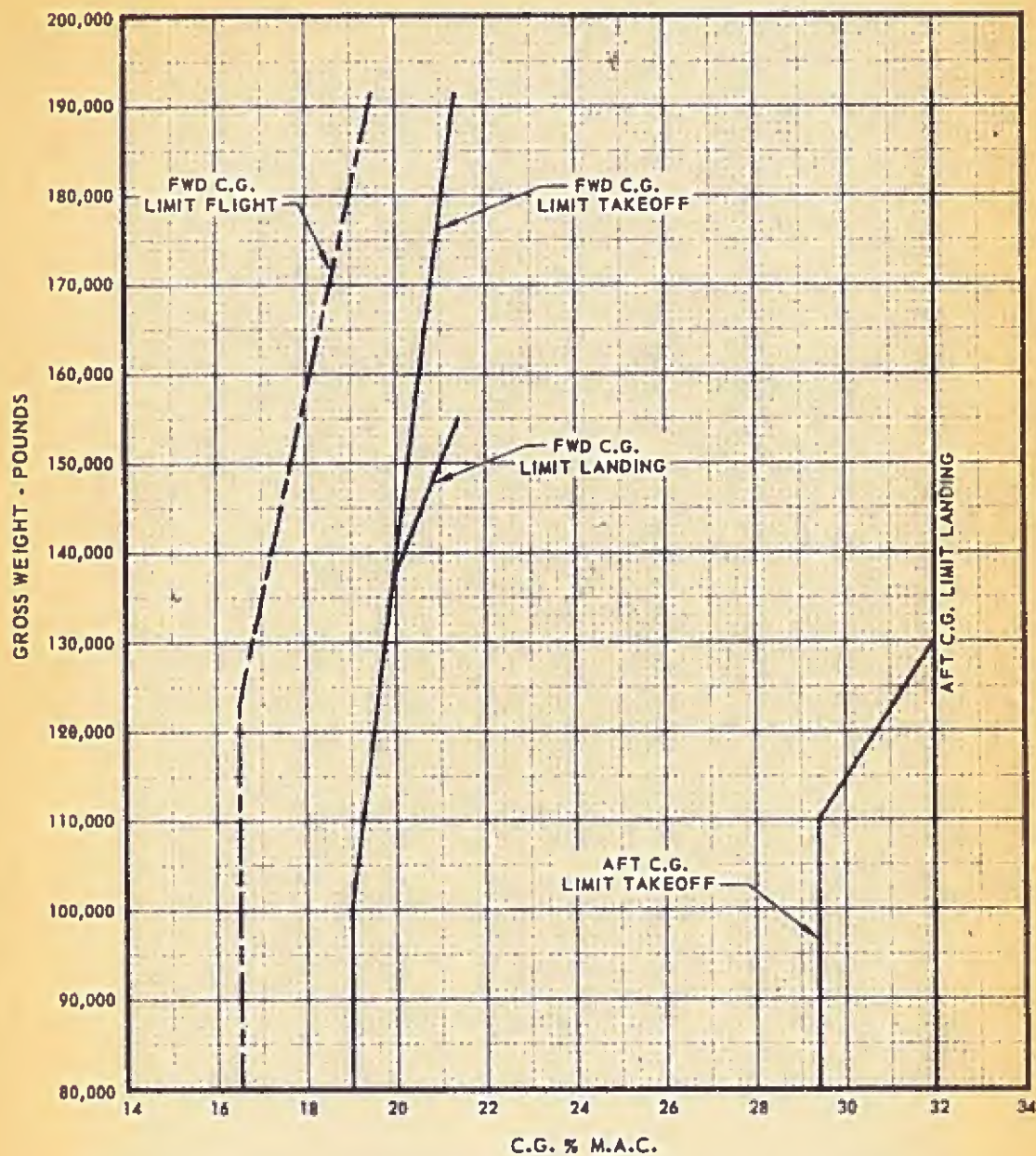
Description of Change:

Page 7a, C. G. DESIGN LIMITS:

Replace above illustration in the specification with Enclosure (A) which adds new aft C. G. Limit takeoff and landing.

Enclosure: (A) One copy Page 7a, C. G. LIMITS (Revised)

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None



C.G. LIMITS
JAPAN

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,085 DTD 31 August 1960

CHANGE NO.: 29

MODEL: 22-22 (Convair "880")

TITLE: ATC Transponder Beacon, Dual, Installation of

ORIGIN: JAL Memorandum No. 3 (S. MITUSOKA to H. B. DUCKWORTH), dated 30 August 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

+50.0 lb

+50.0 lb

+13,350

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Allegretti 9/7/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE: -

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

CONVAIR: SD

Japan Air Lines
Change No. 29

Page 1 of 2

Title: ATC Transponder Beacon, Dual, Installation of

Origin: JAL Memorandum No. 3 (S. MITUSOKA to H. B. DUCKWORTH), dated
30 August 1960

Reason for Change: Customer request

Description of Change:

Page 70, Paragraph 3.17.1 EQUIPMENT:

Revise the first sentence to read as follows:

"The following radio and radar systems shall be furnished and installed by Convair, except as otherwise noted."

Add the following item under "Description":

"*ATC Transponder Beacon (Dual)"

Delete the following item under "Provisions for the following systems shall be made":

"ATC Transponder Beacon (Dual)"

Add the following to the bottom of Page 70:

"*Buyer furnished equipment"

Page 80, Paragraph 3.17.4.2 RADAR SAFETY BEACON (PROVISIONS):

Revise the paragraph title and paragraph to read as follows:

"RADAR SAFETY BEACON: A Buyer-furnished dual, ATC Transponder Beacon shall be installed in the radio rack."

Page 80, Paragraph 3.17.4.2.2 ANTENNA:

Revise the sentence to read as follows:

"Two external-type antennas shall be installed."

Page 80a, ANTENNA ARRANGEMENT:

Above illustration will be revised to show two ATC Radar Beacon antennas installed in lieu of provisions for a second antenna.

Page A-1, APPENDIX I-A, CUSTOMER FURNISHED - CONVAIR INSTALLED:

Add the following to the page:

"ELECTRONIC EQUIPMENT

2	ATC Transponder Beacon	Collins	621A-2	50.0 lb"
---	------------------------	---------	--------	----------

Page A-9, APPENDIX I-C, ELECTRONIC EQUIPMENT:

Revise the below item under "ATC TRANSPONDER BEACON" as follows:

<u>From:</u>	"1	Antenna	Electronic	LB-147"
--------------	----	---------	------------	---------

<u>To:</u>	"2	Antenna	Electronic Specialties	LB-147"
------------	----	---------	------------------------	---------

Effect on Weight Empty:	+50.0 pounds
Effect on Balance:	+13,350 inch-pounds
Effect on Performance:	None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD-22-322

DATE: _____

CUSTOMER Japan Air Lines

MCL 15,006 DTD _____

CHANGE NO. 27

MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Delete One Towel Disposal)

ORIGIN Convair initiated

REASON FOR CHANGE: To make specification consistent with actual lavatory equipment installation.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: * None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Allegretti
8/26/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: _____

BY: _____

DATE: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

CONVAIR: SD

Japan Air Lines
Change No. 27

Title: Specification Administrative Change (Delete One Towel Disposal)

Origin: Convair initiated

Reason for Change: To make specification consistent with actual lavatory equipment installation.

Description of Change:

Page 87, Paragraph 3.19.2.2.3 MISCELLANEOUS LAVATORY EQUIPMENT:

Revise the top item on the page as follows:

From: "Two towel disposals (one for linen and one for paper)"

To: "One towel disposal"

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322 DATE: _____

CUSTOMER: Japan Air Lines MCL 15,005 DTD _____

CHANGE NO: 26 MODEL: 22-22 (Convair "880")

TITLE Specification Administrative Change (Revision to Appendix I-C Equipment Part Numbers, and Delete Airline Shaver)

ORIGIN: Convair initiated

REASON FOR CHANGE: To provide current part numbers for subject equipment items, and JAL request to delete Airline Shaver from bilingual list.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:
Change Order No. 2

Alloghenor
8/23/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED _____ CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Specification Administrative Change (Revision to Appendix I-C Equipment Part Numbers, and Delete Airline Shaver)

Origin: Convair initiated

Reason for Change: To provide current part numbers for subject equipment items, and JAL request to delete Airline Shaver from bilingual list.

Description of Change:

Page 10, Paragraph 3.2.5 SIGNS, PLACARDS, NAMEPLATES:

Delete the below item under "The following signs shall be bilingual (Japanese-English)", and reletter the remaining items "x" to "aa":

"x. Airline Shaver"

Page A-4, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Revise the below items under "FLIGHT INSTRUMENTS" as follows:

<u>From:</u>	"1 Indicator, Longitudinal Trim	U. S. Gauge	SRL-012A
	1 Indicator, Flap Position (Dual)	Gen. Electric	8DJ91LAB-Y-1
	2 Indicator, Radio Magnetic	Eclipse-Pioneer	36126-1AF-25-A-1
	1 Indicator, Radio Magnetic"		
<u>To:</u>	"1 Indicator, Longitudinal Trim	U. S. Gauge	SRL-012C
	1 Indicator, Flap Position (Dual)	Gen. Elec.	8DJ91LAB-Y-1 or 8DJ91LAB-1
	3 Indicator, Radio Magnetic	Eclipse-Pioneer	36126-1AF-25-A-1"

Add the following item under "FLIGHT INSTRUMENTS":

"1 Servo Amplifier Collins 333B-3"

Under "SPERRY FLIGHT NAVIGATION SYSTEM", change the following:

From: "3 Servo Amplifier Sperry 618379"

To: "4 Servo Amplifier Sperry 618379"

Revise the below item under "SPERRY C-11 REMOTE COMPASS SYSTEM" as follows:

From: "2 Indicator, Radio Magnetic Direction
(with Power Failure Flag) (C-6B) Sperry"

To: "2 Indicator, Radio Magnetic Direction
(with Power Failure Flag) (C-6B) Sperry 1777215-623"

Page A-5, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Fill in part numbers for the below items under "ENGINE INSTRUMENTS-FUEL SYSTEM" as follows:

"1 Indicator, Fuel Qty Totalizer	Simmonds	393032-02929
2 Indicator, Fuel Qty Counter Pointer Type, Tanks 1 & 4	Simmonds	383053-12919
2 Indicator, Refuel Quantity Tanks 1 and 4	Simmonds	383093-04921
2 Indicator, Refuel Quantity Tanks 2 and 3	Simmonds	383093-04922
2 Indicator, Fuel Qty Counter Pointer Type, Tanks 2 & 3	Simmonds	383053-12920
1 Indicator, Fuel Quantity, Center Section	Simmonds	383053-13930
1 Indicator, Refuel Quantity, Center Section	Simmonds	383093-09420"

Page A-6, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Revise the below items under "ENGINE INSTRUMENT - OIL SYSTEM" as follows:

<u>From:</u> "4 Indicator, Oil Quantity	Simmonds	393024-C1842
4 Indicator, Oil Pressure	U. S. Gauge	SR-04A
4 Indicator, Oil Temperature	Lewis	162C23A"
<u>To:</u> "4 Indicator, Oil Quantity	Simmonds	393024-03842

4	Indicator, Oil Pressure	U. S. Gauge	SR-04B
4	Indicator, Oil Temperature	Lewis	162C23"

Page A-6, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Revise the below items under "PRESSURIZATION, HEATING AND AIR CONDITIONING" as follows:

<u>From:</u>	"2	Indicator, Cabin Supercharger RPM	Ham. Standard	535461
	2	Indicator, Cabin Supercharger Bearing Temperature	Fenwal	800623"
<u>To:</u>	"2	Indicator, Cabin Supercharger RPM	Ham. Standard	562208
	2	Indicator, Cabin Supercharger Bearing Temperature	Fenwal	(P/N to be supplied)

Page A-7, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Revise the below items under "HYDRAULIC AND PNEUMATIC" as follows:

<u>From:</u>	"2	Indicator, Hydraulic Pressure	U. S. Gauge	SRL-07J
	1	Indicator, Emergency Air Brake Pressure	U. S. Gauge	AW1826-ADO1
	1	Indicator, Brake Hydraulic Pressure	U. S. Gauge	SRL-07L
	2	Indicator, Hydraulic Fluid Temperature	Lewis	162C22A"
<u>To:</u>	"2	Indicator, Hydraulic Pressure	U. S. Gauge	SRL-07K
	1	Indicator, Emergency Air Brake Pressure	U. S. Gauge	AW1826-ADO2
	1	Indicator, Brake Hydraulic Pressure	U. S. Gauge	SRL-07W
	2	Indicator, Hydraulic Fluid Temperature	Lewis	162C22"

Page A-9, APPENDIX I-C, ELECTRONIC EQUIPMENT:

Revise the below item under "RADIO COMPASS (ADF) SYSTEM" as follows:

<u>From:</u>	"2 Filters	Collins	635F-1"
<u>To:</u>	"2 Filters	Collins	635-1"

Page A-10, APPENDIX I-C, ELECTRONIC EQUIPMENT:

Revise the below item under "HF COMMUNICATION" as follows:

<u>From:</u>	"1 Frequency Chart	Gables	G-587"
<u>To:</u>	"1 Frequency Chart	Pan-American	PA-13C"

Revise the below item under "CONTROL PANELS" as follows:

<u>From:</u>	"1 Dual HF Control Panel	Gables	G-1033"
<u>To:</u>	"1 Dual HF Control Panel	Gables	G-1033V"

Page A-11, APPENDIX I-C, ELECTRONIC EQUIPMENT:

Revise the below item under "LORAN" as follows:

<u>From:</u>	"1 Receiver	EDO	22760"
<u>To:</u>	"1 Receiver	EDO	31742"

Effect on Weight Empty:	0
Effect on Balance:	0
Effect on Performance:	None

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

SPEC NO.. ZD- 22-322

DATE: _____

CUSTOMER Japan Air Lines

MCL 15,084 DTD 11 August 1960

CHANGE NO: 25

MODEL: 22-22 (Convair "880")

TITLE: Smoke Goggles, Change in Stowage of

ORIGIN. Japan Air Lines requested

REASON FOR CHANGE: As above

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

Neg.

Neg.

Neg. INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

A. C. C. 8/15/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE

RECURRING:

NON-RECURRING:

TOTAL:

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 25

Title: Smoke Goggles, Change in Stowage of

Origin: Japan Air Lines requested

Reason for Change: As above

Description of Change:

Page 45a, PILOT'S AND COPILOT'S CONSOLE AND WING PANELS:

Above illustration will be revised to delete "SMOKE GOGGLES" in four places.

Page 93, Paragraph 3.19.5.5 MASKS:

Add the following to the end of the paragraph:

"Hooks shall be provided in the pilot compartment for stowage of five crew smoke goggles."

Effect on Weight Empty:	Negligible
Effect on Balance:	Negligible
Effect on Performance:	None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER Japan Air Lines

MCL 15,084 DTD Revised 17 October 1960

CHANGE NO. 25A

MODEL: 22-22 (Convair "880")

TITLE Specification Administrative Change (Change in Stowage of Smoke Goggles)

ORIGIN Convair initiated

REASON FOR CHANGE To clarify smoke goggle stowage, and revision to CCP No. 25.

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

Negligible

Negligible

Negligible INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Alloguer
10/25/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 25A

Title: Specification Administrative Change (Change in Stowage of
Smoke Goggles)

Origin: Convair initiated

Reason for Change: To clarify smoke goggle stowage, and revision to
CCP No. 25

Description of Change:

Page 45a, PILOT'S AND COPILOT'S CONSOLE AND WING PANELS:

Above illustration will be revised to delete "SMOKE GOGGLES" in
four places.

Page 93, Paragraph 3.19.5.5 MASKS:

Add the following to the end of the paragraph:

"Holders shall be provided in the pilot compartment for the
stowage of five crew smoke goggles."

Effect on Weight Empty: Negligible
Effect on Balance: Negligible
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,068 DTD 10 May 1960

CHANGE NO: 24

MODEL: 22-22 (Convair "880")

TITLE: Audio System, Changes to

ORIGIN: JAL/CONVAIR Meeting 10 May 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

-12.0 lb

-12.0 lb

-3,114 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND
TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Albuquerque 8/10/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 24

Page 1 of 2

Title: Audio System, Changes to

Origin: JAL/CONVAIR Meeting 10 May 1960

Reason for Change: Customer request

Description of Change:

Page 44b, PILOT'S AND COPILOT'S PEDESTAL:

Above illustration will be revised to delete "PUBLIC ADDRESS" and show "SPACE" in lieu of.

Page 45a, PILOT'S AND COPILOT'S CONSOLE AND WING PANELS:

Above illustration will be revised to delete pilot's and copilot's "MIKE SELECT PANEL".

Page 45b, FLIGHT ENGINEER'S PANEL:

Above illustration will be revised to delete "MIKE SELECT".

Page 45c, PILOT'S AND COPILOT'S OVERHEAD CONTROL PANEL:

Above illustration will be revised to show "PUBLIC ADDRESS".

Page 70, Paragraph 3.17.1.1 CONTROL PANELS:

Revise the below item under "Description" as follows:

From: "Audio Selector (5)"

To: "Audio Selector (4)"

Delete the following item:

"Microphone Selector (4)"

Page 76, Paragraph 3.17.2.3.1 AUDIO SELECTOR:

Delete the third sentence which reads: "An audio selector panel shall be provided near the radio rack."

CONVAIR: SD

Japan Air Lines
Change No. 24

Page 2 of 2

Page A-10, APPENDIX I-C, ELECTRONIC EQUIPMENT:

Revise the below item under "CONTROL PANELS" as follows:

<u>From:</u>	"5 Audio Selector Panel	Gables	G-567"
<u>To:</u>	"4 Audio Selector Panel	Pan-Air Electronics	PA-41G"

Delete the below item under "CONTROL PANELS":

"4 Microphone Selector Panel	Gables	G-802"
------------------------------	--------	--------

Effect on Weight Empty: -12.0 pounds
Effect on Balance: -3,114 inch-pounds
Effect on Performance: None

The following shall not appear in the specification language:

This proposal also includes the installation of the following:

- (a) Three, 2-PDT muting relays on audio junction panel.
- (b) Larger version Frequency Chart.

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,076 DTD 20 May 1960

CHANGE NO: 23

MODEL: 22-22 (Convair "880")

TITLE: Squelch Control on VHF Communication Control Panel, Installation of

ORIGIN: JAL/Convair Meeting, 19 May 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY Neg.	OPER. WT. EMPTY Neg.	Neg. INCH LB.

EFFECT ON GUARANTEED PERFORMANCE. *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Albuquerque 8/10/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE: RECURRING: _____ NON-RECURRING: _____ TOTAL: _____
---------------------	---

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 23

Title: Squelch Control on VHF Communication Control Panel,
Installation of

Origin: JAL-CONVAIR Meeting, 19 May 1960

Reason for Change: Customer request

Description of Change:

Page A-10, APPENDIX I-C, ELECTRONIC EQUIPMENT:

Revise the below item under "CONTROL PANELS" as follows:

From: "VHF Comm/VHF Nav. (ILS, DMET) Gables G-510V"

To: "VHF Comm/VHF Nav. (ILS, DMET) Gables (P/N to be supplied)"

Effect on Weight Empty: Neg.

Effect on Balance: Neg.

Effect on Performance: None

The following shall not appear in the specification language:

The new VHF Communication Control Panel will be similar to the panel it replaces except a squelch control feature will be incorporated therein.

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,075 DTD 20 May 1960

CHANGE NO: 22

MODEL: 22-22 (Convair "880")

TITLE: Two C-11 Compass Controllers on Overhead Panel, Installation of

ORIGIN: JAL/CONVAIR Meeting 19 May 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+8.0 lb	+8.0 lb	+2,197 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

A. Angermeier 8/10/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR 10-10-60-1000

CONVAIR: SD

Japan Air Lines
Change No. 22

Title: Two C-11 Compass Controllers on Overhead Panel, Installation
of

Origin: JAL/CONVAIR Meeting 19 May 1956

Reason for Change: Customer request

Description of Change: .

Page 44a, PILOT'S AND COPILOT'S INSTRUMENT PANELS:

Above illustration will be revised to delete the compass slaving
switch from the pilot's to copilot's panels.

Page 45c, PILOT'S AND COPILOT'S OVERHEAD CONTROL PANEL:

Above illustration will be revised to show two C-11 compass con-
trollers.

Page A-4, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Add the following items under "SPERRY C-11 REMOTE COMPASS SYTEM:

"2	Compass Controllers	Sperry	1775132
2	Power Supply Modules	Sperry	1775143"

Effect on Weight Empty: +8.0 pounds
Effect on Balance: +2,197 inch-pounds
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,073 DTD 20 May 1960

CHANGE NO 21

MODEL: 22-22 (Convair "880")

TITLE: Dual Control Panel, ATC Transponder, Installation of

ORIGIN JAL/CONVAIR Meeting, 19 May 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

Neg.

Neg.

Neg.

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Alloguenor 8/10/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 21

Title: Dual Control Panel, ATC Transponder, Installation of

Origin: JAL/CONVAIR Meeting, 19 May 1960

Reason for Change: Customer request

Description of Change:

Page 71, Paragraph 3.17.1.1 - CONTROL PANELS:

Add the following item under "Description":

"ATC Transponder Beacon (Dual)"

Delete the below item under "Provisions for the following control panels shall be made:"

"ATC Transponder Beacon (Dual)"

Page 80, Paragraph 3.17.4.2.1 - CONTROL:

Revise the sentence to read as follows:

"One dual ATC Transponder Beacon control panel shall be installed on the pilot's pedestal."

Page A-10, APPENDIX I-C, ELECTRONIC EQUIPMENT:

Add the following item under "CONTROL PANELS"

"Dual ATC Transponder
Beacon Control Panel

Gables

G-565"

Effect on Weight Empty:	Neg.
Effect on Balance:	Neg.
Effect on Performance:	None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,077 DTD Revised 23 August 1960

CHANGE NO: 20A

MODEL: 22-22 (Convair "880")

TITLE: Autopilot Flight Control Computer and Controller, Revision to Part Numbers of

ORIGIN: JAL/Convair Meeting of 19 May 1960

REASON FOR CHANGE: Customer request, and revision to CCP No. 20.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY +1.0 lb	OPER. WT. EMPTY +1.0 lb	+300 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Handwritten Signature]
8/22/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 20A

Title: Autopilot Flight Control Computer and Controller, Revision to Part Numbers of

Origin: JAL/Convair Meeting of 19 May 1960

Reason for Change: Customer request, and revision to CCP No. 20.

Description of Change:

Page A-6, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Revise the below items under "AUTOPILOT TYPE SP-30" as follows:

<u>From:</u>	"1 Computer, Flight Control	Sperry	1776003-1
	1 Automatic Pilot Controller	Sperry	1776001-1"
<u>To:</u>	"1 Computer, Flight Control	Sperry	(P/N to be supplied)
	1 Automatic Pilot Controller	Sperry	1776001-5"

Effect on Weight Empty: +1.0 pound
Effect on Balance: +300 inch-pounds
Effect on Performance: None

The following shall not appear in the specification language:

The computer will be similar to Sperry 1776003-1 except that it will be modified to include provisions for doppler input.

This proposal also includes the installation of wiring between the autopilot flight control computer, doppler navigator computer and doppler controller.

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322 DATE: _____
 CUSTOMER: Japan Air Lines MCL 15,004 DTD _____
 CHANGE NO: 18 MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Revision to Pilots' Instrument Panel and Pedestal Illustrations)

ORIGIN: Convair initiated

REASON FOR CHANGE: To clarify the intent of the specification

EFFECT ON WEIGHT *		EFFECT ON BALANCE *	
GUAR. WT. EMPTY	OPER. WT. EMPTY	Neg.	INCH LB.
Neg.	Neg.		

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

A. Auger 8/2/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____
 NON-RECURRING: _____
 TOTAL: _____

ACCEPTED

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 18

Title: Specification Administrative Change (Revision to Pilots' Instrument Panel and Pedestal Illustrations)

Origin: Convair initiated

Reason for Change: To clarify the intent of the specification.

Description of Change:

Page 44a, PILOT'S AND COPILOT'S INSTRUMENT PANELS:

Replace above illustration in the specification with Enclosure (A) which deletes "MAIN LANDING GEAR" and "NOSE LANDING GEAR" on pilot's panel and adds "MAIN WHEEL INOP." and "NOSE WHEEL INOP."

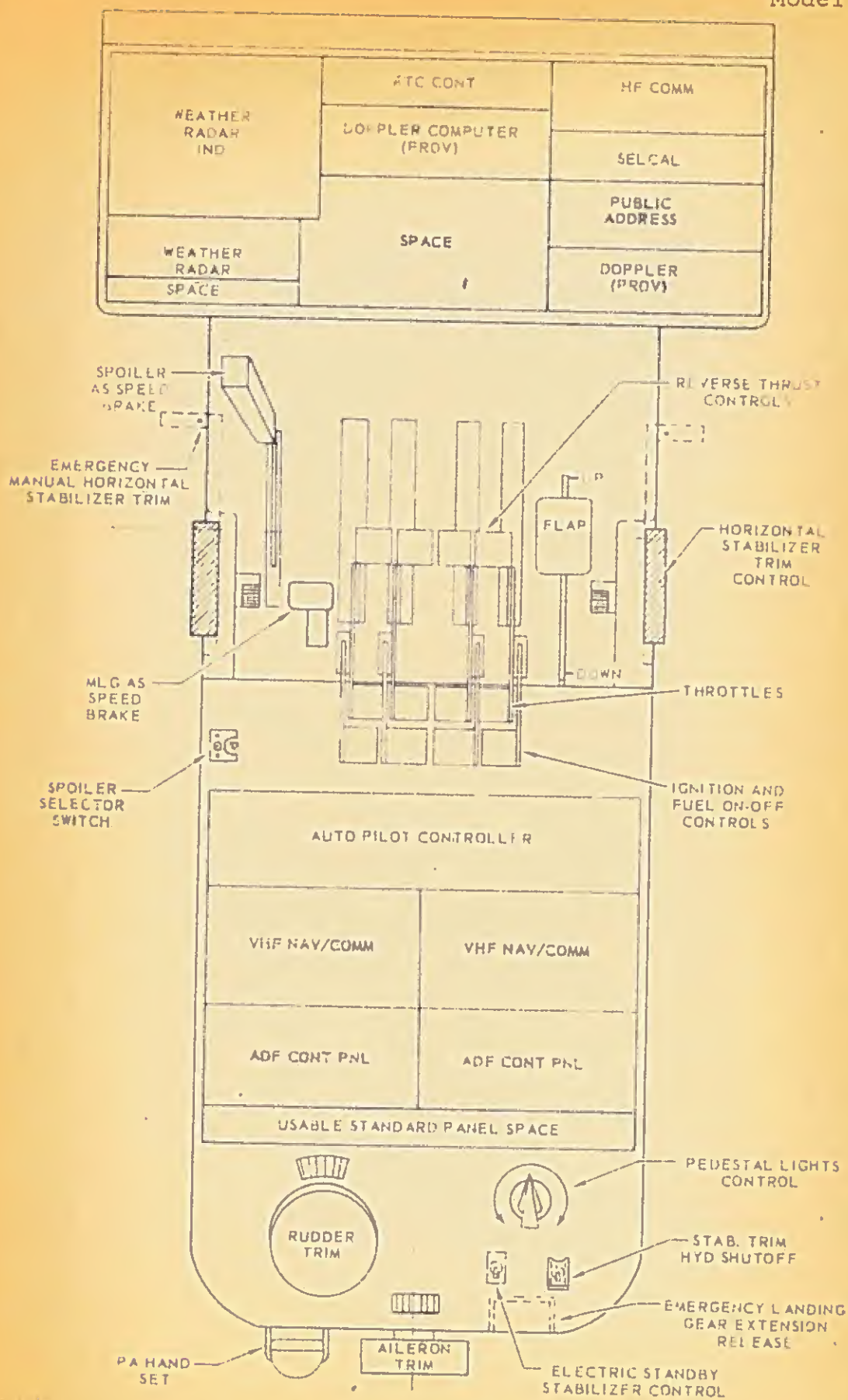
Page 44b, PILOT'S AND COPILOT'S PEDESTAL:

Replace above illustration in the specification with Enclosure (B), which deletes "MALFUNCTION LIGHTS".

Enclosures: (A) One copy Page 44a, PILOT'S AND COPILOT'S INSTRUMENT PANELS (Revised)

(B) One copy Page 44b, PILOT'S AND COPILOT'S PEDESTAL (Revised)

Effect on Weight Empty: Negligible
Effect on Balance: Negligible
Effect on Performance: None



PILOT'S AND CO-PILOT'S PEDESTAL

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,083 DTD _____

CHANGE NO: 17

MODEL: 22-22 (Convair "880")

TITLE: Main System Hydraulic Pumps, Change to

ORIGIN: Convair initiated

REASON FOR CHANGE: Product improvement

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+31.0 lb	+31.0 lb	+23,091 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	<p><i>Alverson 7/20/60</i></p> <p>ENGINEERING APPROVAL</p>
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: _____ CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

FORM 100, 3-59 (REV. 1-60)

CONVAIR: SD

Japan Air Lines
Change No. 17

Title: Main System Hydraulic Pumps, Change to

Origin: Convair initiated

Reason for Change: Product improvement

Description of Change:

Page A-12, APPENDIX I-C, HYDRAULIC AND PNEUMATIC EQUIPMENT:

Revise the below item under "Description" as follows:

From: "4 Pump, Main System
(Variable Displacement
Type)

Ham. Standard"

To: "4 Pump, Main System
(Variable Displacement
Type)

Vickers

AS-61695-L-2"

Effect on Weight Empty: +31.0 pounds
Effect on Balance: +23,091 inch-pounds "
Effect on Performance: None

The following shall not appear in the Specification language:

The hydraulic pump will incorporate one electrical depressurization valve and one blocking valve. The bolt-on ports will be modified to suit the Model 22 installation, and the yoke blocked back to a 6 gpm rating in lieu of 10 gpm.

This proposal also deletes the four accumulators in the hydraulic return lines, since these accumulators are not required with the Vickers pump.

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,003 DTD 24 June 1960

CHANGE NO: 14

MODEL: 22-22 (Convair "880")

TITLE: Specification Administrative Change (Signal Pistol Stowage Provisions, Relocation of)

ORIGIN: Convair initiated

REASON FOR CHANGE: To relocate for safety precautions, preventing passenger access to these items.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	Neg. INCH LB.
Neg.	Neg.	

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Alverson
6/28/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Airlines
Change No. 14

Title: Specification Administrative Change (Signal Pistol Stowage Provisions, Relocation of)

Origin: Convair initiated

Reason for Change: To relocate for safety precautions, preventing passenger access to these items.

Description of Change:

Page 88, Paragraph 3.19.2.6.2 SIGNAL PISTOL:

Change paragraph and title to read as follows:

"SIGNAL PISTOL (PROVISIONS): Provisions for the stowage of one Kilgore G-37-K signal pistol and six Kilgore 3-27 shells shall be made in the pilot's compartment. These items shall be Customer furnished.

Effect on Weight Empty:	Negligible
Effect on Balance:	Negligible
Effect on Performance:	None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD-22-322

DATE: _____

CUSTOMER Japan Air Lines

MCL 15,074 DTD 20 May 1960

CHANGE NO. 12

MODEL: 22-22 (Convair "880")

TITLE: Spare Radio Equipment Stowage in Electronic Rack, Provisions for

ORIGIN: JAL/CONVAIR Meeting of 19 May 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY +2.0 lb	OPER. WT. EMPTY +2.0 lb	+550 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Alverson 7/5/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 12

Title: Spare Radio Equipment Stowage in Electronic Rack, Provisions
for

Origin: JAL/CONVAIR Meeting of 19 May 1960

Reason for Change: Customer request

Description of Change:

Page 80, Add the following new paragraph after Paragraph 3.17.3.7.2:

"3.17.3.7.3 SPARE RADIO EQUIPMENT STOWAGE PROVISIONS: Stowage provisions (less wiring) shall be made in the electronic rack for the following spare radio equipment:

- A. 1 H.F. Transmitter, ATOM (1/2 ATR)
- B. 1 H.F. Receiver, STAR (1/2 ATR)
- C. 1 ADF Receiver, 51Y-3 (1/2 ATR)
- D. 1 Instrument Unit, 344B-1 (1/2 ATR)
- E. 1 Loran Receiver, 31742 (3/4 ATR)"

Effect on Weight Empty: +2.0 pounds
Effect on Balance: +550 inch-pounds
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,002 DTD 15 June 1960

CHANGE NO: 11

MODEL: 22-22 (Convair "880")

TITLE Specification Administrative Change (Emergency Radio Transmitter, Relocation of)

ORIGIN Convair initiated

REASON FOR CHANGE: To correct actual location of Emergency Radio Transmitter in the specification

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	None INCH LB.
None	None	

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Albuquerque 6/17/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 11

Title: Specification Administrative Change (Emergency Radio Transmitter, Relocation of)

Origin: Convair initiated

Reason for Change: To correct actual location of Emergency Radio Transmitter in the Specification.

Description of Change:

Page 80, Paragraph 3.17.3.6 - EMERGENCY RADIO TRANSMITTER:

Change the paragraph to read as follows:

"Provisions shall be made for the stowage of one AN/CRT-3 emergency radio transmitter in the right hand forward coat compartment".

Effect on Weight Empty: None
Effect on Balance: None
Effect on Performance:

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322 DATE: _____

CUSTOMER: Japan Air Lines MCL 15,078 DTD 8 June 1960

CHANGE NO: 10 MODEL: 22-22 (Convair "880")

TITLE: Main Tires, Fabric Reinforced, Installation of

ORIGIN: Convair initiated

REASON FOR CHANGE: Product improvement

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+23.0 lb	+23.0 lb	+20,194 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

W. Longman
6/8/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 10

Title: Main Tires, Fabric Reinforced, Installation

Origin: Convair initiated

Reason for Change: Product improvement

Description of Change:

Page A-14, APPENDIX I-C, LANDING GEAR EQUIPMENT:

Revise the below item under "Description" as follows:

From: "8 Tire, Main Wheel (39 x 13)
Type VII 22 Ply Rating,
Skid Depth .25-inches) U. S. Rubber"

To: "8 Tire, Main Wheel (39 x 13)
(Type VII, 22-Ply Rating,
Fabric-Reinforced Tread,
Skid Depth .35-inch) U. S. Rubber"

Effect on Weight Empty: +23.0 pounds
Effect on Balance: +20,194 inch-pounds
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,070 DTD 10 May 1960

CHANGE NO: 9

MODEL: 22-22 (Convair "880")

TITLE: Radio and Flight Director System, Interconnection of

ORIGIN: JAL/CONVAIR Meeting of 10 May 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

+4.0 lb

+4.0 lb

+1,055

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND
TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES.

Allogee
6/7/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

FORM 11-1, 11-2, 11-3, 11-4

CONVAIR: SD

Japan Air Lines
Change No. 9

Title: Radio and Flight Director System, Interconnection of

Origin: JAL/CONVAIR Meeting of 10 May 1960

Reason for Change: Customer request

Description of Change:

Page 44a, PILOT'S AND COPILOT'S INSTRUMENT PANELS:

Above illustration will be revised to show instrument switch for Nav. Glide Slope No. 1 and No. 2.

Page 46 - Change paragraph number of "PERISCOPIC SEXTANT (PROVISIONS ONLY)" from "3.14.2" to "3.14.2.1"

Add following over new Paragraph 3.14.2.1:

"3.14.2 FLIGHT AND NAVIGATIONAL INSTRUMENTS AND INTERCONNECTION: "

Add the following new paragraph after Paragraph 3.14.2.1:

"3.14.2.2 INTERCONNECTION OF EQUIPMENT: The flight director system shall be interconnected with VHF Navigation Systems No. 1 and No. 2, so that inputs to the flight director system may be selected from either VHF navigation system."

Effect on Weight Empty: +4.0 pounds
Effect on Balance: +1,055 inch-pounds
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322 DATE: _____
 CUSTOMER: Japan Air Lines MCL 15,067 DTD 10 May 1960
 CHANGE NO: 8 MODEL: 22-22 (Convair "880")

TITLE: Altitude Control, Sperry Integrated Flight System Installation of

ORIGIN: JAL/CONVAIR Meeting of 10 May 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+4.0 lb	+4.0 lb	+1,326 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

 ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Allegu
 6/7/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____
 NON-RECURRING: _____
 TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 8

Title: Altitude Control, Sperry Integrated Flight System, Installation of

Origin: JAL/CONVAIR Meeting of 10 May 1960

Reason for Change: Customer request

Description of Change:

Page A-4, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Add the following item under "SPERRY FLIGHT NAVIGATION SYSTEM":

"1 Altitude Control Sperry 620399-2"

Effect on Weight Empty: +4.0 pounds
Effect on Balance: +1,326 inch-pounds
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,065 DTD 10 May 1960

CHANGE NO: 7

MODEL: 22-22 (Convair "880")

TITLE: Flight Reference Selector Switch, and C6B Indicator, Installation of

ORIGIN: JAL/CONVAIR Meeting of 10 May 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+15.0 lb	+15.0 lb	+4,250 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Albuquerque
6/7/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Japan Air Lines
Change No. 7

Effect on Weight Empty: +15.0 pounds
Effect on Balance: +4,250 inch-pounds
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,064 DTD 9 May 1960

CHANGE NO. 6

MODEL: 22-22 (Convair "880")

TITLE: Additional Portable Oxygen Bottles, Installation of

ORIGIN: JAL/CONVAIR Meeting of 26 April 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
None	+26.0 lb	+18,607 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Albuquerque 6/7/60
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE: _____ AIRPLANES AFFECTED: _____

SPECIAL PROVISIONS: _____ EFFECT ON PRICE PER AIRPLANE:
RECURRING: _____
NON-RECURRING: _____
TOTAL: _____

ACCEPTED: _____ CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 6

Title: Additional Portable Oxygen Bottles, Installation of

Origin: JAL/CONVAIR Meeting of 26 April 1960

Reason for Change: Customer request

Description of Change:

Page 94, Paragraph 3.19.5.6 PORTABLE BOTTLES:

Revise the second sentence as follows:

From: "Three 310-liter portable oxygen bottles shall be provided, two located in the aft entrance area and one located in the forward coat compartment."

To: "Six, seven-cubic foot portable oxygen bottles shall be provided, three located in the aft L.H. coat closet, two in the forward R.H. coat closet and one in the forward L.H. coat closet."

Page A-15, APPENDIX I-C, OXYGEN EQUIPMENT:

Revise the below items as follows:

<u>From:</u>	"3 *Bottle, Portable Oxygen (7-cu ft)	Scott	5500-B1A-BF20B	{ 60.0
	3 Mask, Oxygen			
<u>To:</u>	"6 *Bottle, Portable Oxygen (7-cu ft)	Scott	5500-B1A-BF20B	{ 80.0
	6 Mask, Oxygen (A8B)	Scott	23275	

Effect on Operating Weight Empty:	+26.0 pounds
Effect on Weight Empty:	None
Effect on Balance:	+18,607 inch-pounds
Effect on Performance:	None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322 DATE: _____

CUSTOMER: Japan Air Lines MCL 15,063 DTD 9 May 1960

CHANGE NO: 5 MODEL: 22-2 (Convair "880")

TITLE: Toilet Paper Dispenser and Razor Blade Disposal, Installation of

ORIGIN: JAL/CONVAIR Meeting of 26 April 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+5.0 lb	+5.0 lb	+4,200 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

W. J. ...
6/6/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____
NON-RECURRING: _____
TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR FORM 912174

CONVAIR: SD

Japan Air Lines
Change No. 5

Title: Toilet Paper Dispenser and Razor Blade Disposal, Installation of

Origin: JAL/CONVAIR Meeting of 26 April 1960

Reason for Change: Customer request

Description of Change:

Page 87, Paragraph 3.19.2.2.3 MISCELLANEOUS LAVATORY EQUIPMENT:

Add the following items to the list of equipment to be installed in the lavatory:

"One toilet paper dispenser (interlock leaf)
One razor blade disposal container"

Effect on Weight Empty: +5.0 pounds
Effect on Balance: +4,200 inch-pounds
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322 DATE: _____

CUSTOMER: Japan Air Lines MCL 15,056 DTD Revised 5 May 1960

CHANGE NO.: 4 MODEL: 22-22 (Convair "880")

TITLE: Overhead Convenience Pods, Installation of; and Clarification of Seat Spacing

ORIGIN: JAL/CONVAIR Meeting of 26 April 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+96.0 lb	+96.0 lb	+60,960 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Al Longmire
6/7/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____
NON-RECURRING: _____
TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 4

Title: Overhead Convenience Pods, Installation of; and Clarification of Seat Spacing

Origin: JAL/CONVAIR Meeting of 26 April 1960

Reason for Change: Customer request

Description of Change:

This proposal has no effect on specification language, and provides new spacer panels in overhead convenience pods to permit pod adjustment from 31 to 37 inches, with the first class seats at 42-inch spacing and the coach seats at 34-inch spacing as presently specified in the specification. The convenience pods will be installed at 34-inch spacing starting at ten inches forward of Station 1217 (both R.H. and L.H. sides) extending forward to Station 446. This adds eight additional pods over original configuration. It is not intended that 31-inch spacing will be possible throughout the cabin, but only at a few locations at any one time.

This proposal also installs two additional passenger public address speakers, one on each side of the cabin.

Effect on Weight Empty: +96.0 pounds
Effect on Balance: +60,960 inch-pounds
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____
MCL 15,054 DID 3 May 1960 Revised

CUSTOMER: Japan Air Lines

CHANGE NO: 3

MODEL: 22-22 (Convair "880"

TITLE Forward Right Hand Coat Compartment and First Class Curtain, Installation of

ORIGIN JAL/Convair meeting, 26 April 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
-57.0 lb	-57.0 lb	-24,800 INCH

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

* ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Approved for J.T. Rensdyke

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL _____

ACCEPTED

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Line
Change No. 3

Page 1 of 2

Title: Forward Right Hand Coat Compartment and First Class Curtain Installation of

Origin: JAL/Convair meeting, 26 April 1960

Reason for Change: Customer request

Description of Change:

Page 84, Paragraph 3.19.2.1.1 BUFFETS:

Revise the paragraph to read as follows:

"Five Buyer-furnished buffet units shall be installed. Units No. 1 and No. 2 (two-section unit) shall be located in the forward right-hand area. Units No. 3 and No. 4 shall be located in the right-hand service door area. Unit No. 5 shall be located forward of the aft entrance door on the left-hand side."

Page 87, Paragraph 3.19.2.3 COAT STOWAGE:

Specify a third fixed coat compartment. The paragraph will then read as follows:

"Three fixed passenger coat stowage compartments shall be installed and shall be located as follows: One forward of the forward main entrance door on the left side, one aft of the aft main entrance door, and one aft of the Number 2 buffet on the right side. The installation shall be as shown on the illustration herein (See also 3.19.3.1.2)."

Page 89, Paragraph 3.19.3.1.2 MOVABLE COAT COMPARTMENTS:

In the second sentence, delete reference to a third track mounted coat compartment. The sentence will then read as follows:

"Both coat compartments shall utilize the passenger seat tracks permit fore and aft movement at one-inch increments, except in the areas of the overhead life raft stowage and the emergency exit locations."

CONVAIR: SD

Japan Air Line
Change No. 3

Page 2 of 2

Page 90, Paragraph 3.19.3.5 CURTAINS:

Add the following as the next-to-the-last sentence:

"An aisle curtain shall be provided at the forward end of the first-class section."

Page A-15, APPENDIX I-C, FURNISHINGS

Delete:

"1 Coat Compartment, R.H.
23.6-Inch Movable"

Effect on Weight Empty: -57.0 pounds
Effect on Balance: -24,800 inch-pounds
Effect on Performance: None

The following will not appear in the specification language:

The window at Station 441.8 will be deleted and structural provisions only for a window shall be incorporated.

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

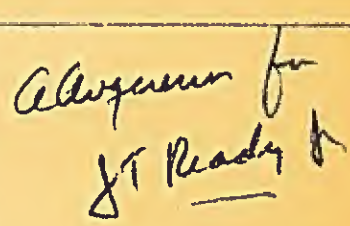
DATE: _____ Revised _____

CUSTOMER: Japan Air Lines

MCL 15,053 DTD 3 May 1960

CHANGE NO 2

MODEL. 22-22 (Convair "880")

TITLE <u>Trilingual and Bilingual Signs, Installation of Additional</u>		
ORIGIN: <u>JAL/Convair Meeting, 26 April 1960</u>		
REASON FOR CHANGE: <u>Customer request</u>		
EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
Neg.	Neg.	Neg. INCH
EFFECT ON GUARANTEED PERFORMANCE: *		
None		
* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:		<div style="text-align: center;">  </div> <p style="text-align: right;">ENGINEERING APPROV.</p>
LATEST DATE OF ACCEPTANCE:		AIRPLANES AFFECTED:
SPECIAL PROVISIONS:		EFFECT ON PRICE PER AIRPLANE: RECURRING: _____ NON-RECURRING: _____ TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY _____

DATE: _____

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-322

DATE: _____

CUSTOMER: Japan Air Lines

MCL 15,057 DTD Revised 3 May 1960

CHANGE NO. 1

MODEL: 22-22 (Convair "880")

TITLE: Tourist Class Curtain, Installation of

ORIGIN: JAL/Convair meeting, 26 April 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

+8.0 lb

+8.0 lb

+9,696 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

Albuquerque 12/may 60
For Review

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Japan Air Lines
Change No. 1

Title: Tourist Class Curtain, Installation of

Origin: JAL/Convair meeting, 26 April 1960

Reason for Change: Customer request

Description of Change:

Page 90, Paragraph 3.19.3.5 CURTAINS:

Add the following after the third sentence:

"A curtain, tied to left and the right hand sides, shall be provided at the aft end of the tourist section."

Effect on Weight Empty:	+8.0 pounds
Effect on Balance:	+9,696 inch-pounds
Effect on Performance:	None